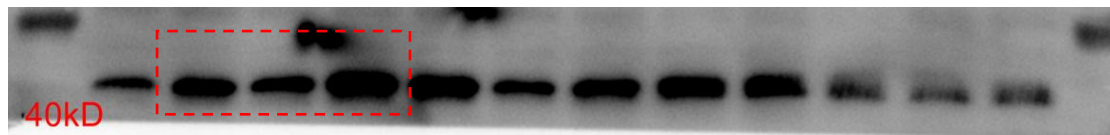


Figure 1.

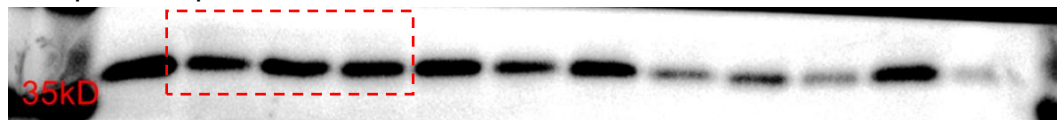
Lanes within the red dotted boxes, arranged left to right: WT group, Control-5xFAD group, PE-5xFAD group.

Figure 1b. Lal, LC3II/LC3I

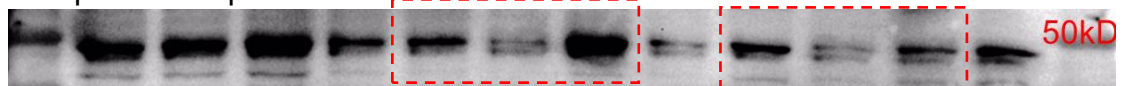
Sample 1 Lipa-cortex



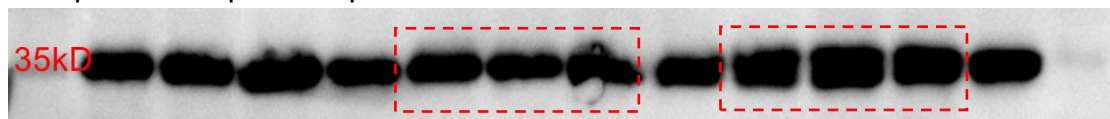
Sample 1 Gapdh



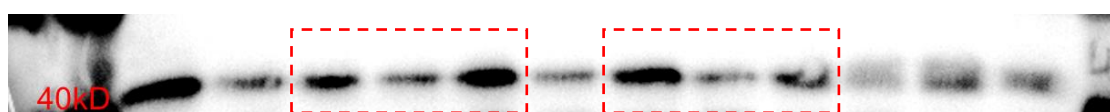
Sample 2+Sample 3 Lal-cortex



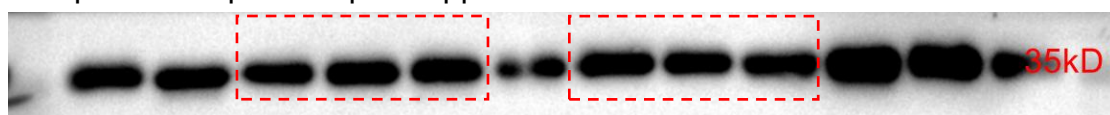
Sample 2+Sample 3 Gapdh-cortex



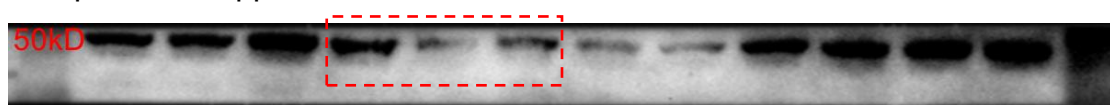
Sample 1+Sample 2 Lal-Hippo



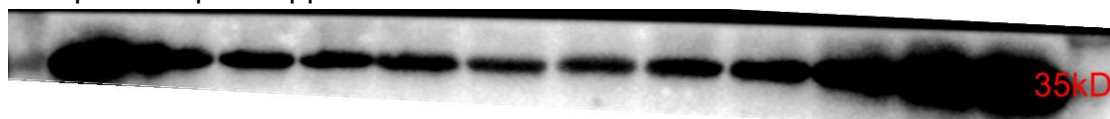
Sample 1+Sample 2 Gapdh-Hippo



Sample 3 Lal-Hippo

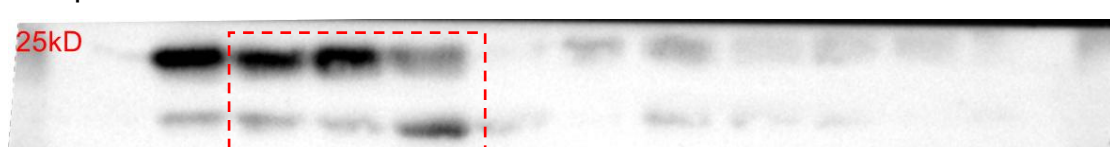


Sample 3 Gapdh-Hippo

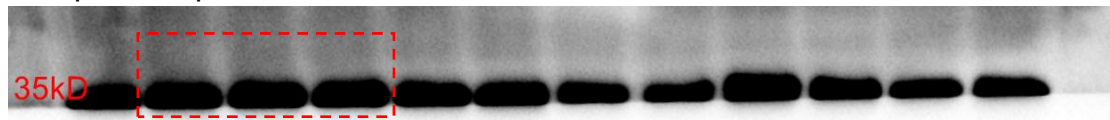


LC3II/LC3I

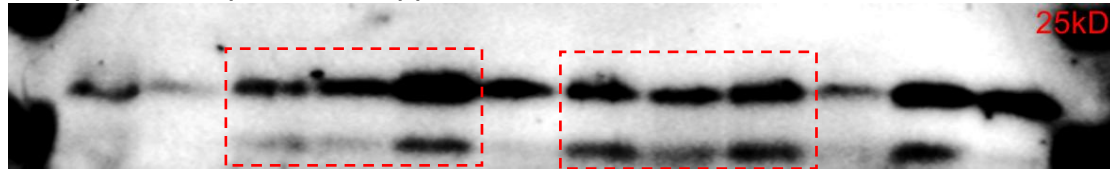
Sample 1 Lc3II/Lc3I cortex



Sample 1 Gapdh cortex



Sample 1+Sample 2 Lc3 Hippo



Sample 1+Sample 2 gapdh Hippo

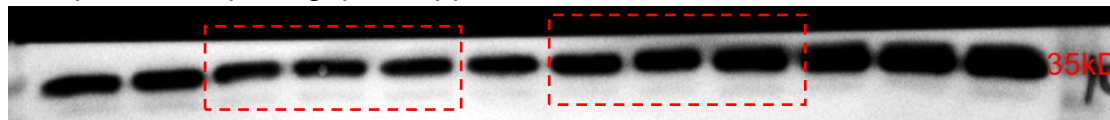
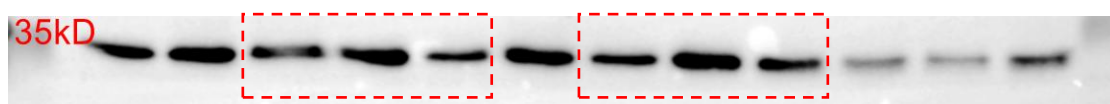
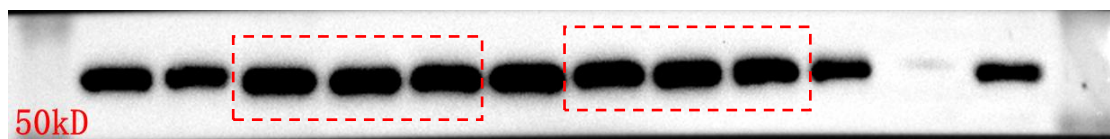


Figure 1 f.Tmem9

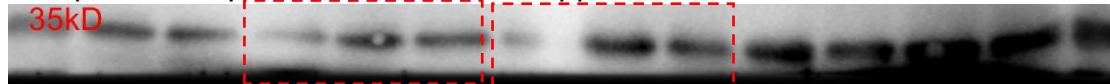
Sample 1+Sample 1 Tmem9 cortex+Hippo



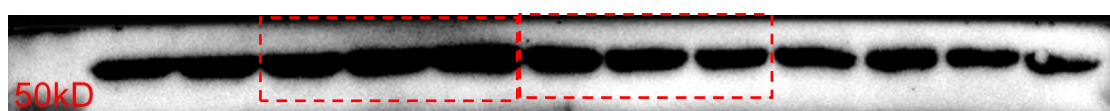
Sample 1+Sample 1 β -Tubulin cortex+Hippo



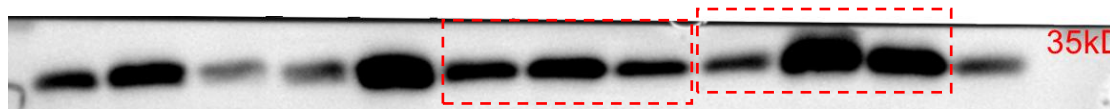
Sample 2+Sample 2 Tmem9 cortex+Hippo



Sample 2+Sample 2 β -Tubulin cortex+Hippo



Sample 3+Sample 2 Tmem9 cortex+Hippo



Sample 3+Sample 3 β -Tubulin cortex+Hippo

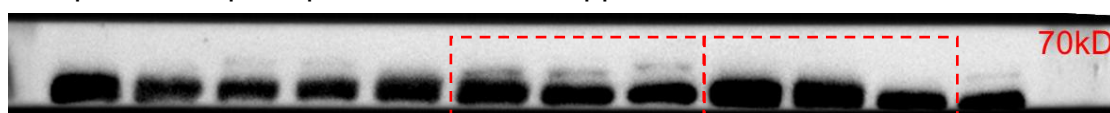


Figure 2.

Lanes within the red dotted boxes, arranged left to right: WT group, Control-5xFAD group, PE-5xFADgroup, RNAi-Tmem9-5xFAD group, PE+OE--5xFAD group.

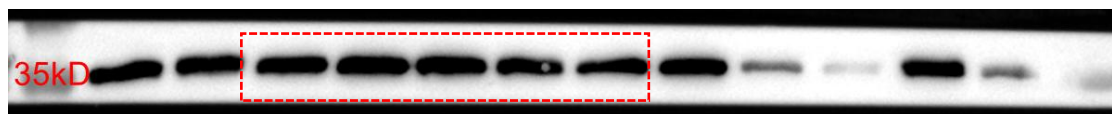
Figure 2.b Atg5, P62,LC3II/LCI and LAL

Atg5

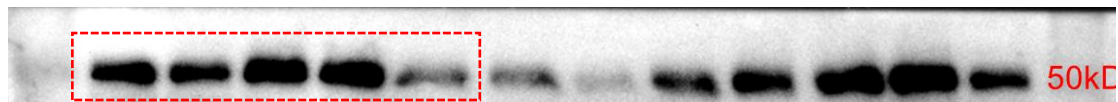
Sample 1- Atg5-cortex



Sample 1- Gapdh-cortex



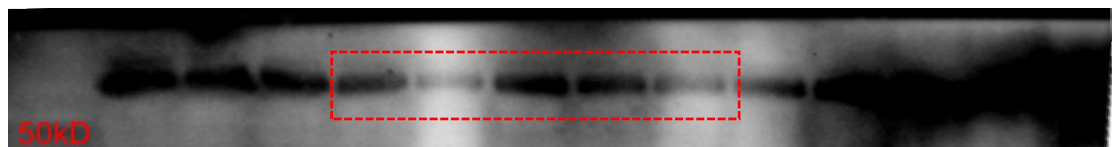
Sample 2- Atg5-cortex



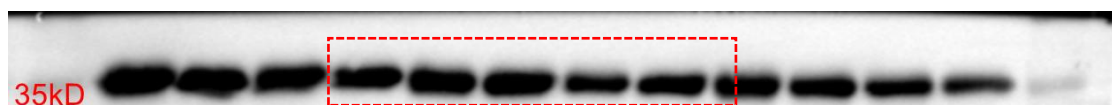
Sample 2- Gapdh-cortex



Sample 3- Atg5-cortex



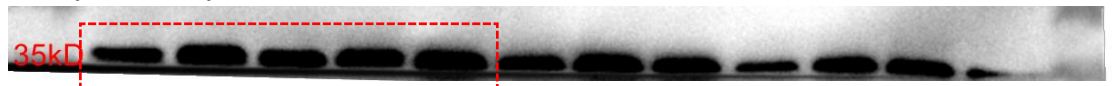
Sample 3- Gapdh-cortex



Sample 4- Atg5-cortex

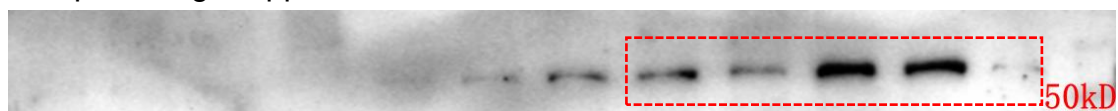


Sample 4- Gapdh-cortex

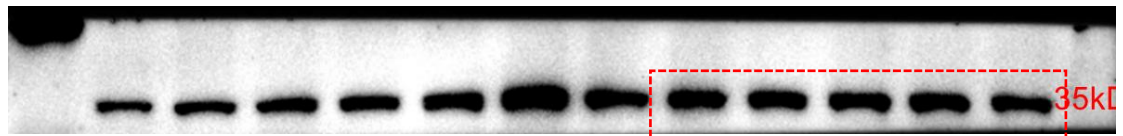


Atg5-Hippocampus

Sample 1- Atg5 Hippo



Sample 1-Gapdh-Hippo



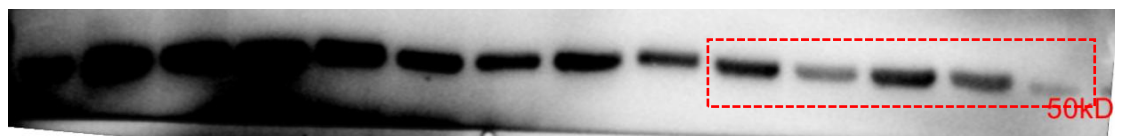
Sample 2- Atg5 Hippo



Sample 2- Gapdh Hippo



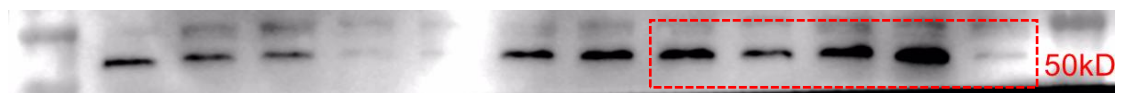
Sample 3- Atg5 Hippo



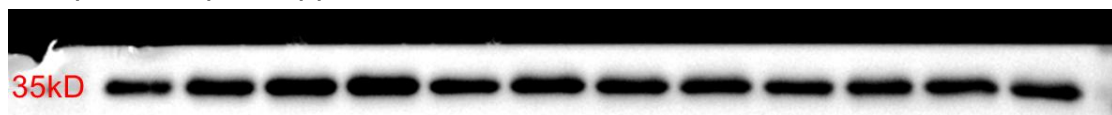
Sample 3- Gapdh Hippo



Sample 4- Atg5 Hippo

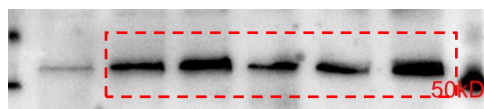


Sample 4- Gapdh Hippo

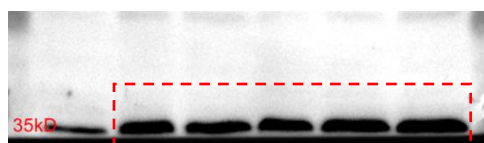


P62

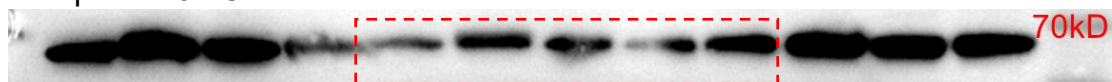
Sample-1 P62 Cortex



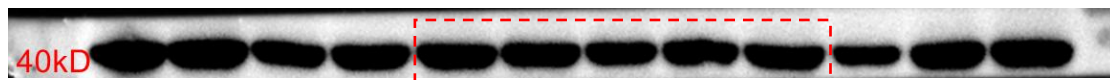
Sample-1 Gapdh Cortex



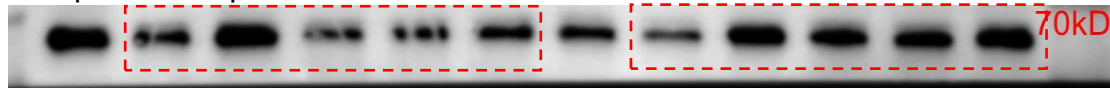
Sample-2 P62 Cortex



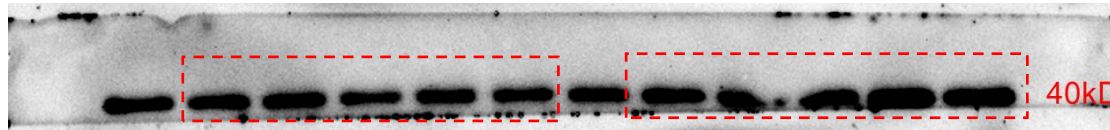
Sample-2 β -actin Cortex



Sample-3+Sample 4 P62 Cortex

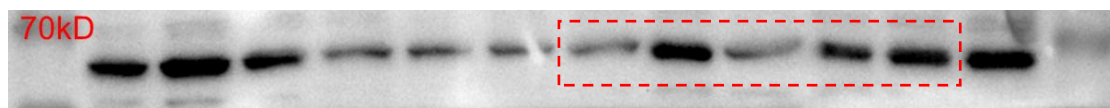


Sample-3+Sample 4 β -actin Cortex

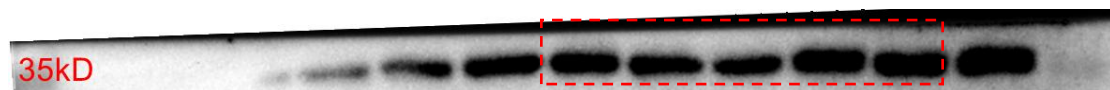


Hippocampus

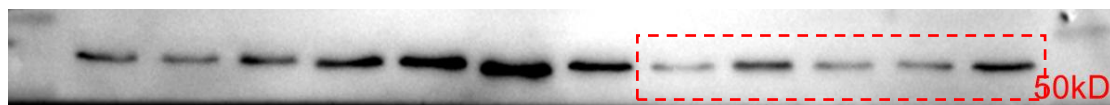
sample-1 P62 Hippo



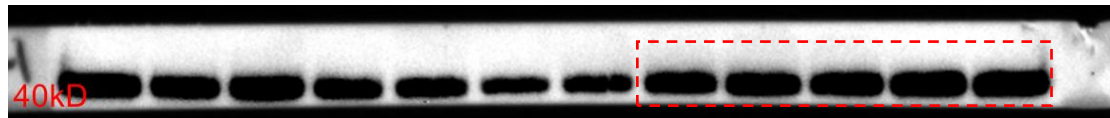
sample-1 GapdhHippo



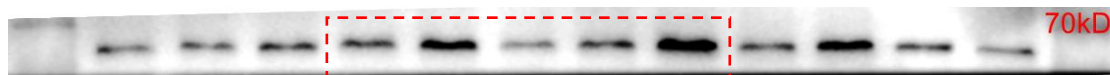
sample-2 P62 Hippo



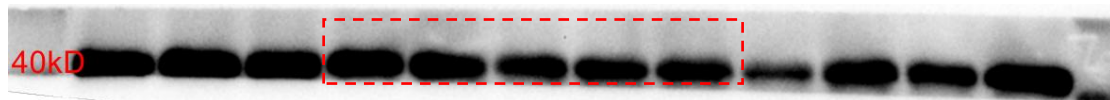
sample-2 β -actin Hippo



sample-3 P62 Hippo



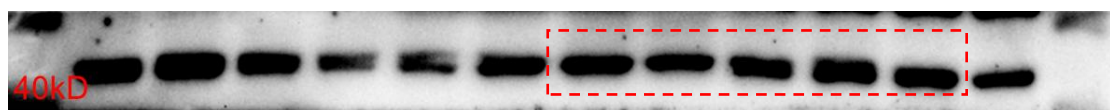
sample-3 β -actin Hippo



sample-4 P62 Hippo

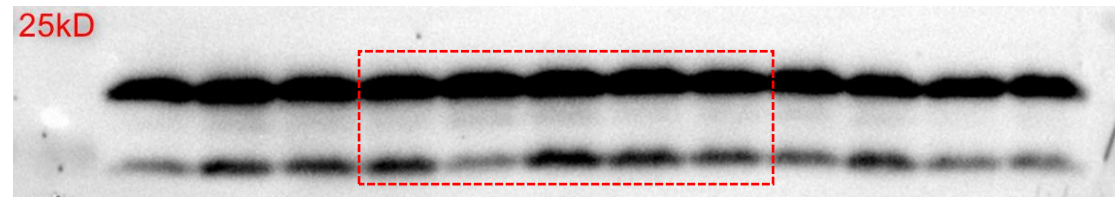


sample-4 β -actin Hippo

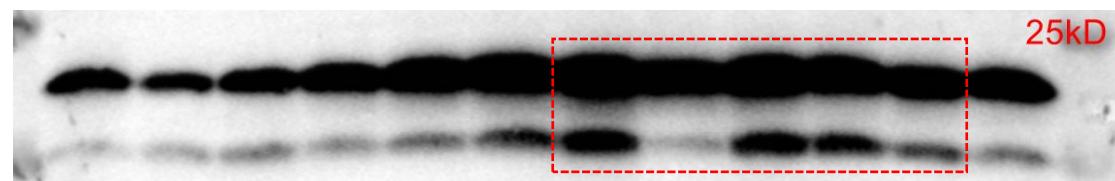


LC3

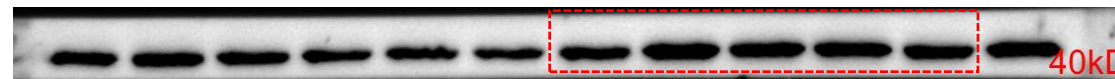
Sample-1 Lc3II/I. cortex



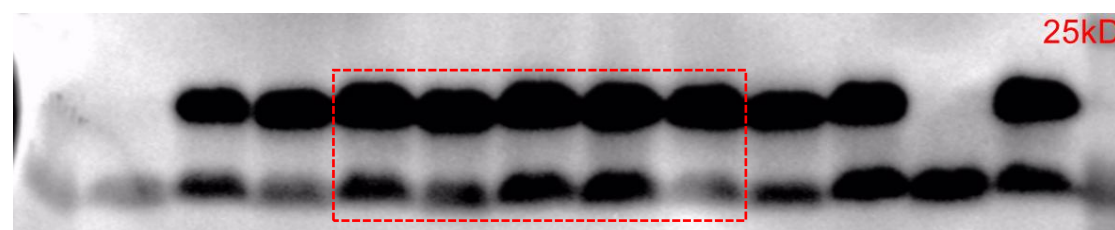
Sample-2 Lc3II/I. cortex



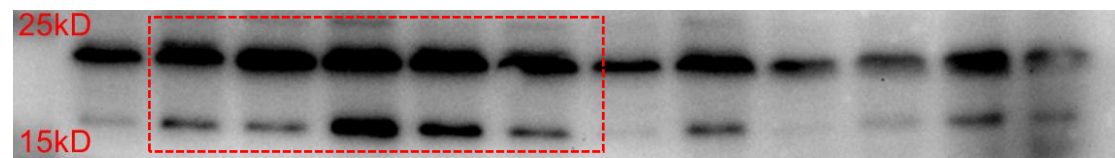
Sample-2 β -actin cortex



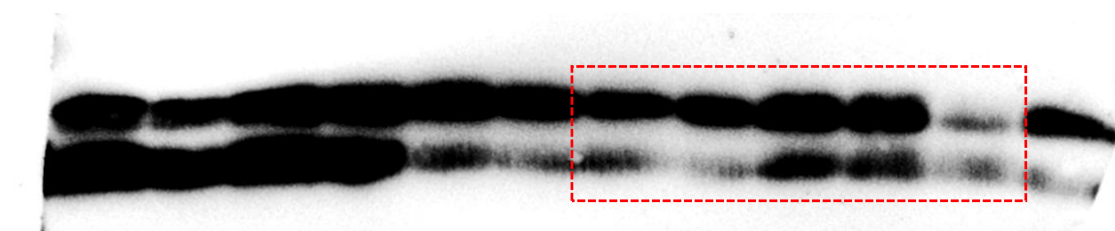
Sample-3 Lc3II/I. cortex



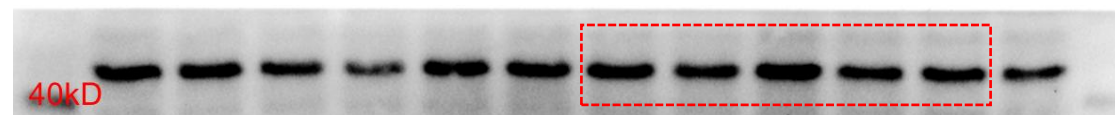
Sample-4 Lc3II/I. cortex



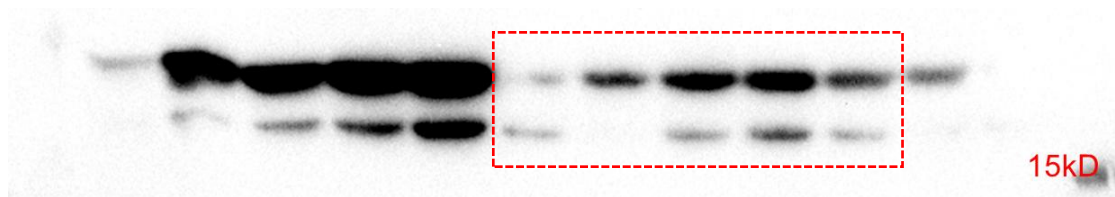
Sample-1 Lc3II/I. Hip



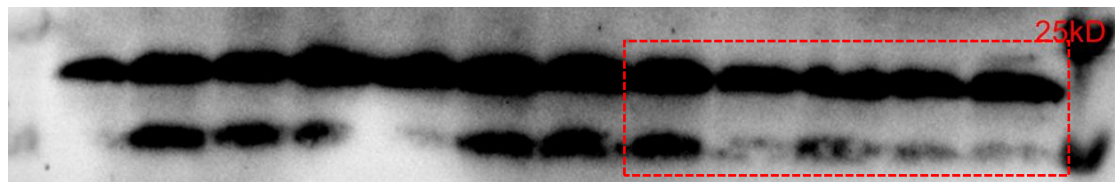
Sample-1 β -actin-Hip



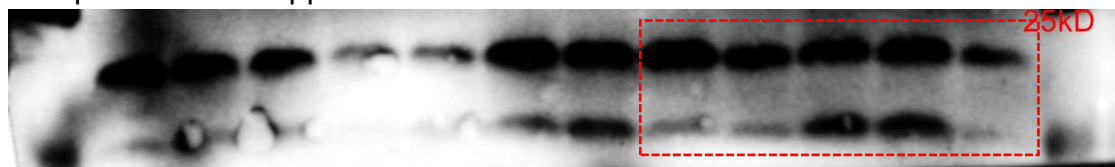
Sample-2 Lc3II/I. Hip



Sample-3 Lc3II/I. Hippo

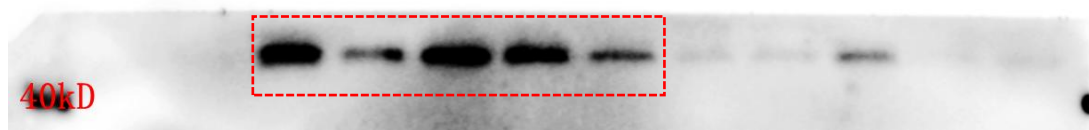


Sample-4 Lc3II/I. Hippo



Lal

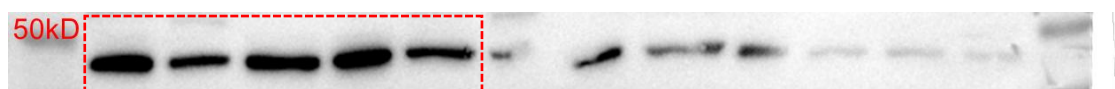
Sample -1 Lal-Cortex



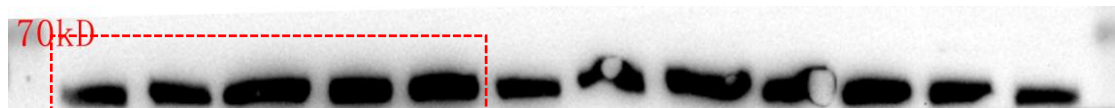
Sample -1 β -Tubulin-cortex



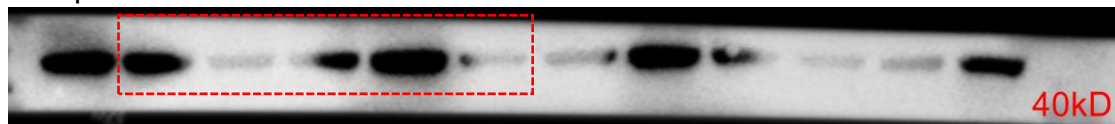
Sample -2 Lal-Cortex



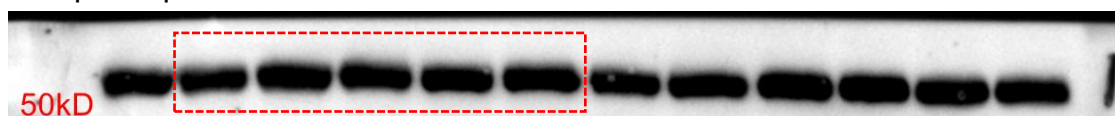
Sample -2 β tubulin-Cortex



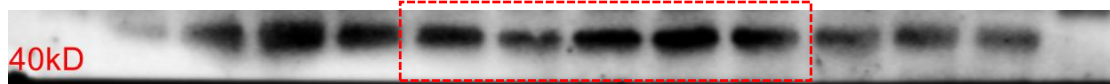
Sample -3 Lal-Cortex



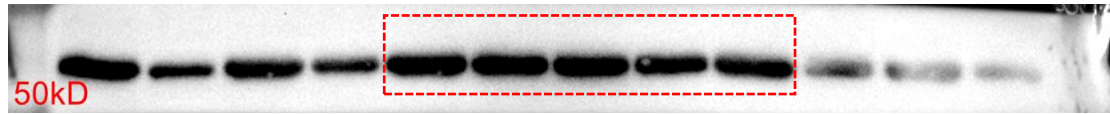
Sample -3 β tubulin-Cortex



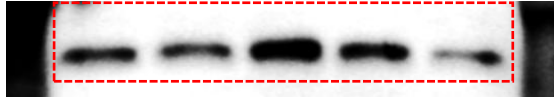
Sample -4 Lal-Cortex



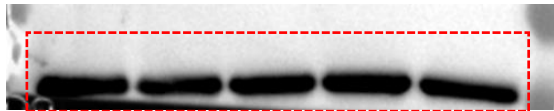
Sample -4 β tubulin-Cortex



Sample -1 Lal-Hippo



Sample -1 Tubulin-hip



Sample -2 Lal-Hippo



Sample -2 β -Tubulin-Hippo



Sample -3 Lal-Hippo



Sample -3 β -Tubulin-Hippo



Sample -4 Lal-Hippo



Sample -4 β -Tubulin-Hippo



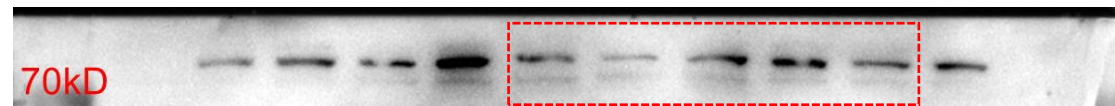
Figure 3.

Lanes within the red dotted boxes, arranged left to right: WT, Control-5xFAD, PE-5xFAD, RNAi-Tmem9, PE+OE-Tmem9.

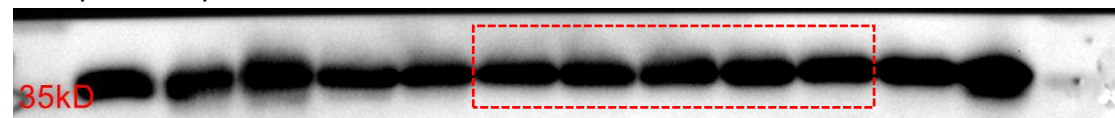
Figure 3a. Cpt1a, Ndufb10

Cpt1a Cortex

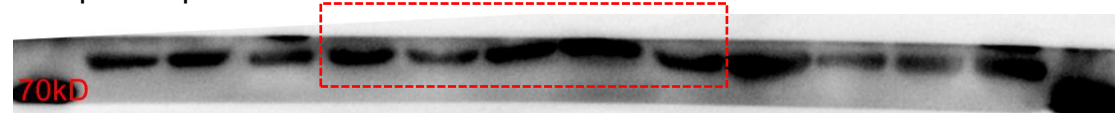
Sample-1 Cpt1a -Cortex



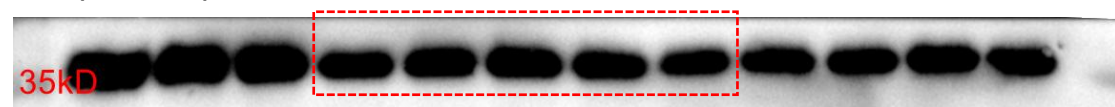
Sample-1 Gapdh-cortex



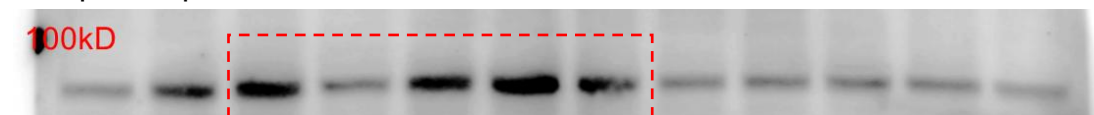
Sample-2 Cpt1a -Cortex



Sample-2 Gapdh-cortex



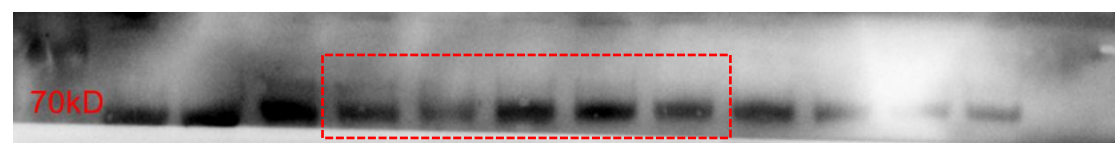
Sample-3 Cpt1a -cortex



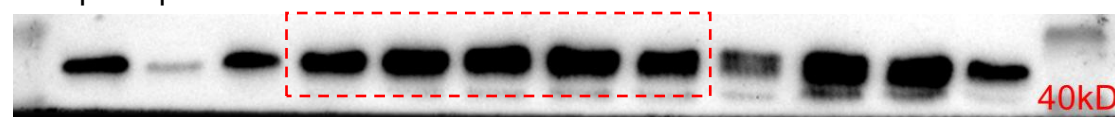
Sample-3 β -actin -cortex



Sample-4 Cpt1a -Cortex

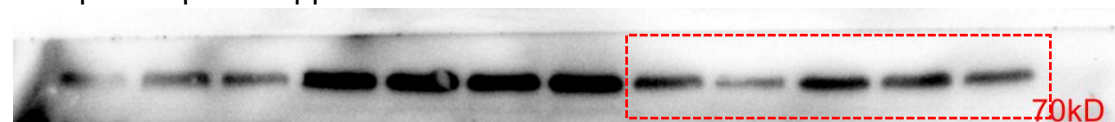


Sample-4 β -actin -cortex



CPT1A Hippocampus

Sample-1 Cpt1a -Hippo



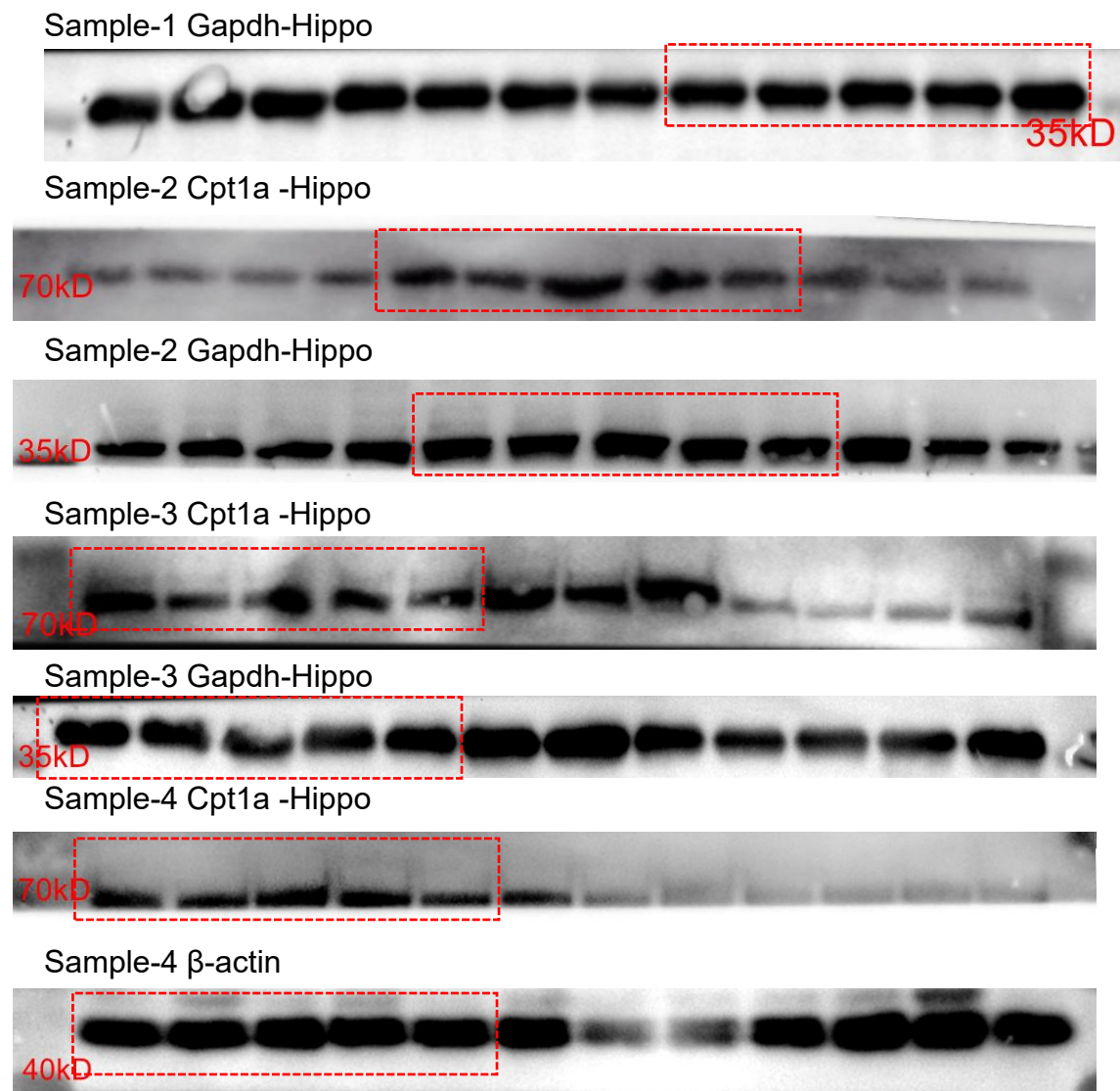
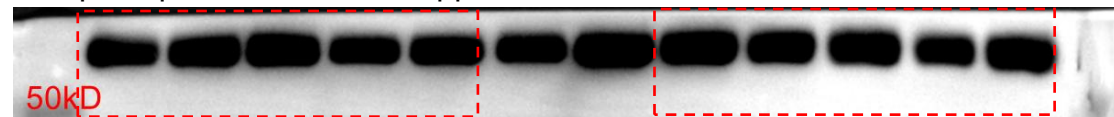


Figure 3a. Ndufb10

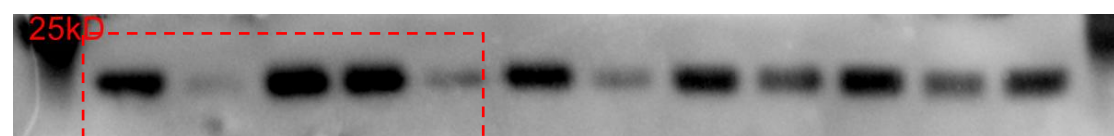
Sample-1 Ndufb10 cortex+Hippo



Sample-1 β -Tubulin cortex+Hippo



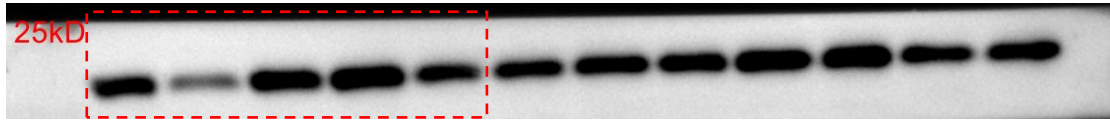
Sample-2 Ndufb10 cortex



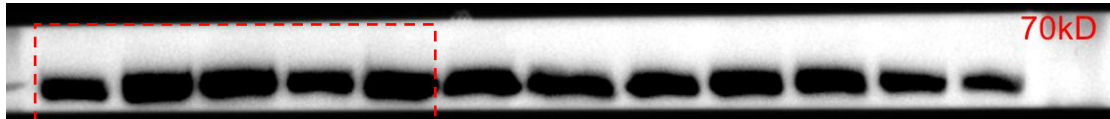
Sample-2 β -tubulin cortex



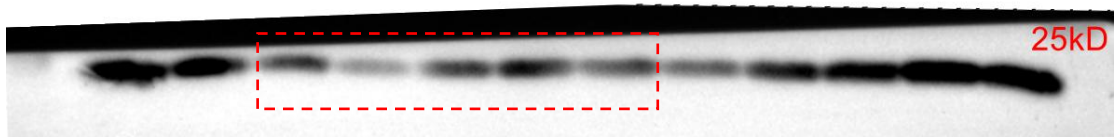
Sample-3 Ndufb10 cortex



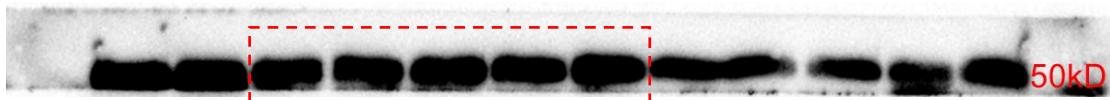
Sample-3 β -tubulin cortex



Sample-4 Ndufb10 cortex

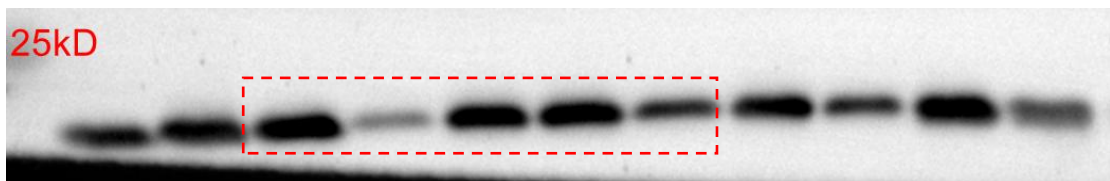


Sample-4 β -tubulin cortex

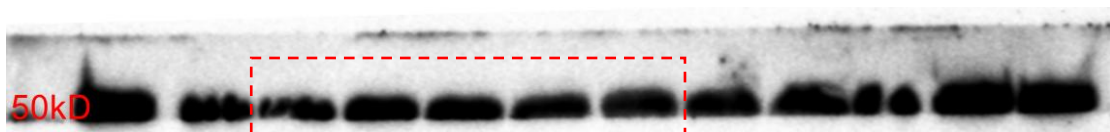


Hippocampus

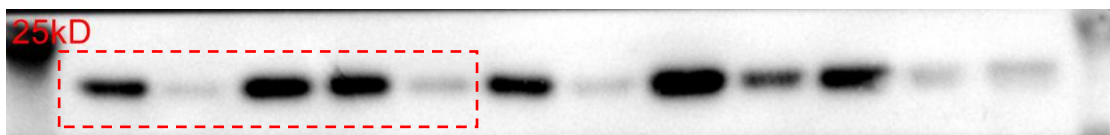
Sample-2 Ndufb10 hippo



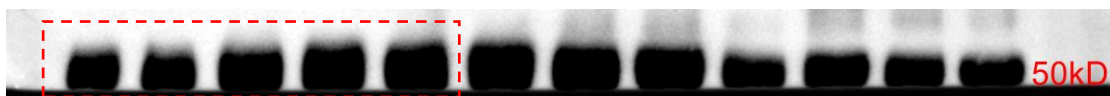
Sample-2 β -Tubulin hippo



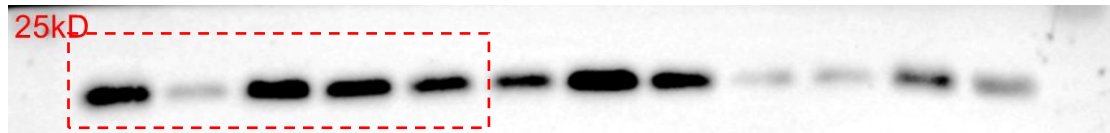
Sample-3 Ndufb10 hippo



Sample-3 β -Tubulin hippo



Sample-4 Ndufb10 hippo



Sample-4 β -Tubulin hippo

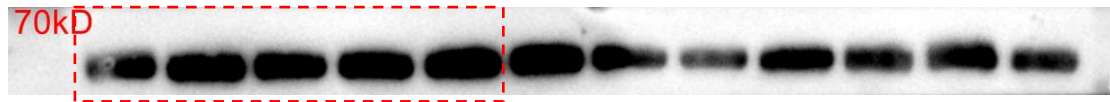
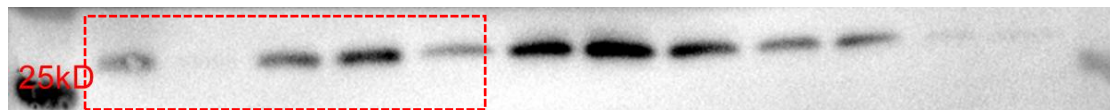
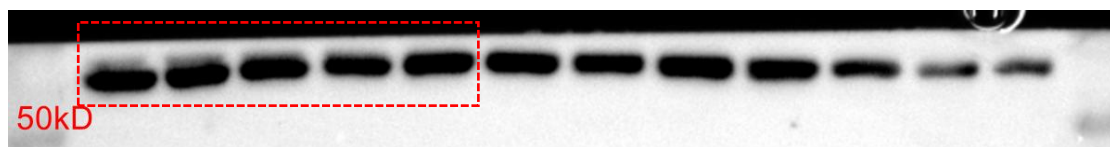


Figure 3a.Sdhb

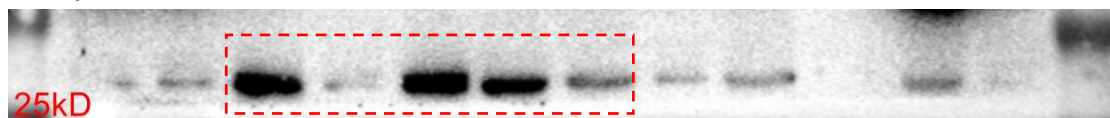
Sample 1 Sdhb-Cortex



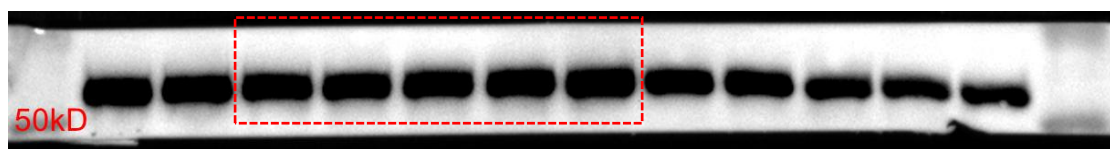
Sample 1 β -Tubulin-cortex



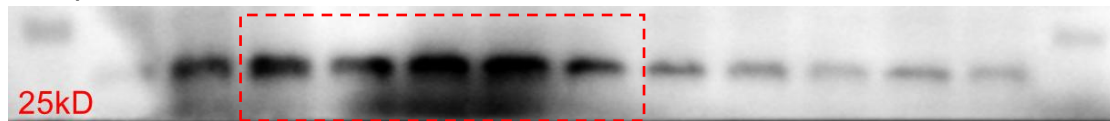
Sample 2 Sdhb-Cortex



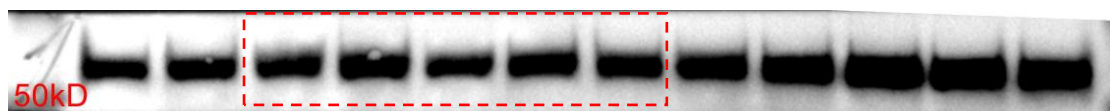
Sample 2 β -Tubulin-Cortex



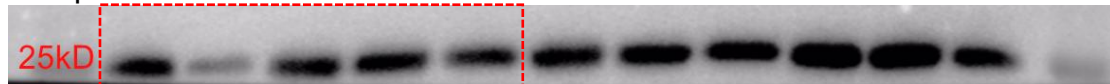
Sample 3 Sdhb-Cortex



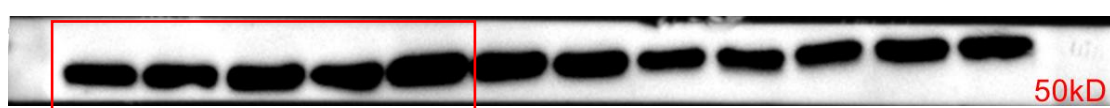
Sample 3 β -Tubulin-Cortex



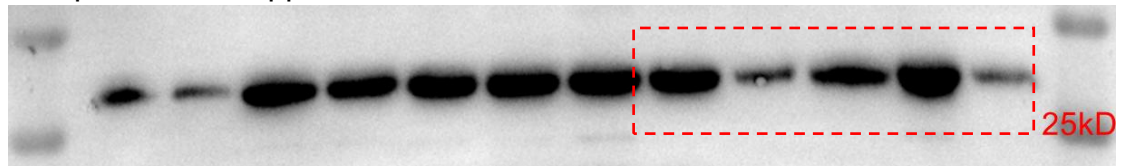
Sample 4 Sdhb-Cortex



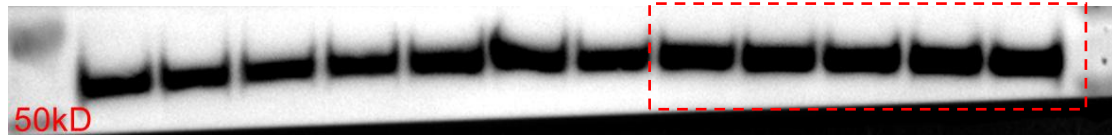
Sample 4 β -Tubulin-cortex



Sample 1 Sdhb-Hippo



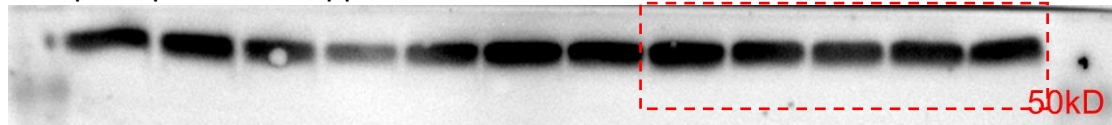
Sample 1 β -Tubulin Hippo



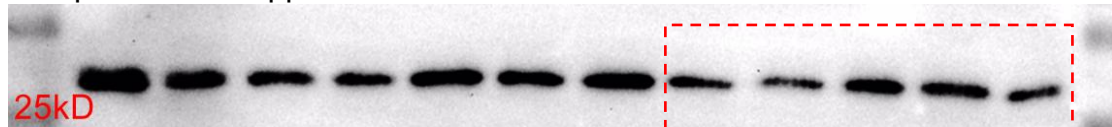
Sample 2 Sdhb-Hippo



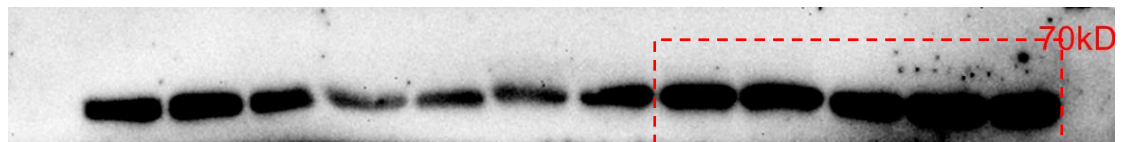
Sample 2 β -Tubulin-Hippo



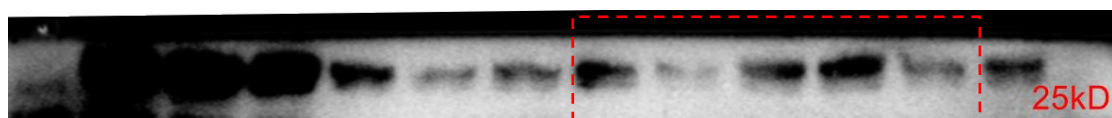
Sample 3 Sdhb-Hippo



Sample 3 β -Tubulin-Hippo



Sample 4 Sdhb-Hippo



Sample 4 β -Tubulinn-Hippo

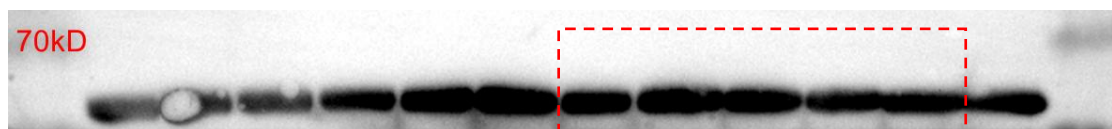
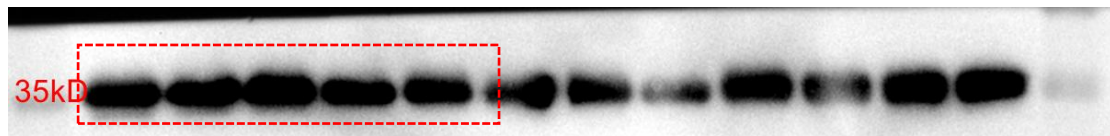


Figure 3a.Uqcrc2

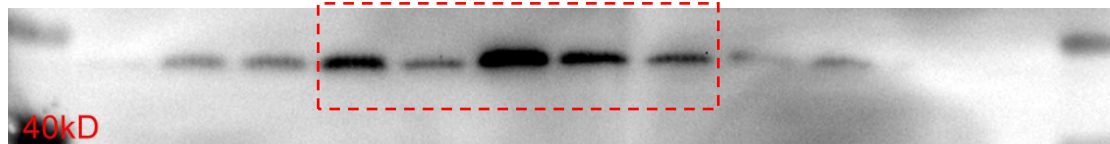
Sample 1 Uqcrc2 cortex



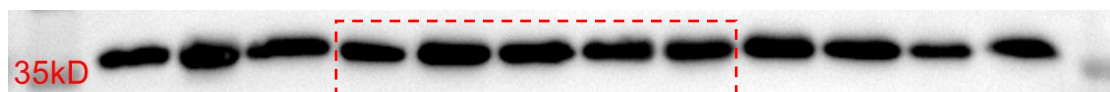
Sample 1 Gapdh cortex



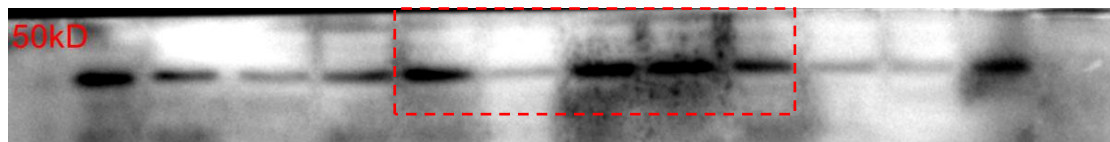
Sample 2 Uqcrc2 cortex



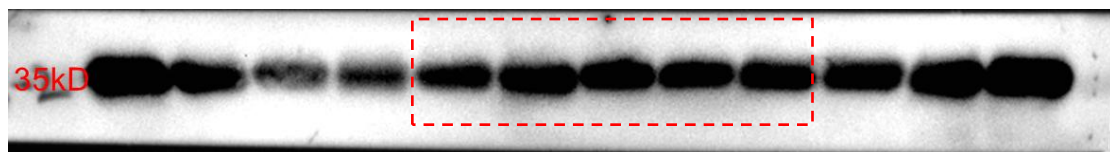
Sample 2 Gapdh cortex



Sample 3 Uqcrc2 cortex



Sample 3 Gapdh cortex



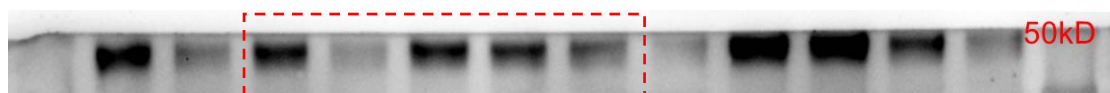
Sample 4 Uqcrc2 cortex



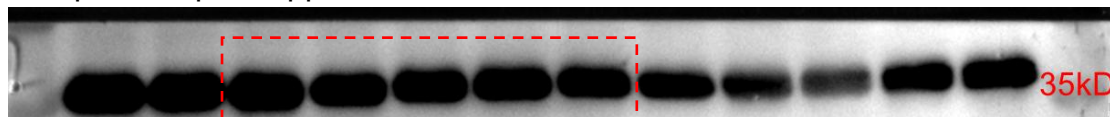
Sample 4 Gapdh cortex



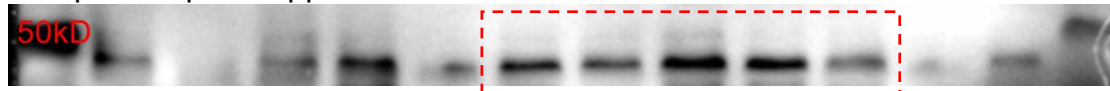
Sample 1 Uqcrc2 Hippo



Sample 1 Gapdh Hippo



Sample 2 Uqcrc2 hippo



Sample 2 Gapdh hippo

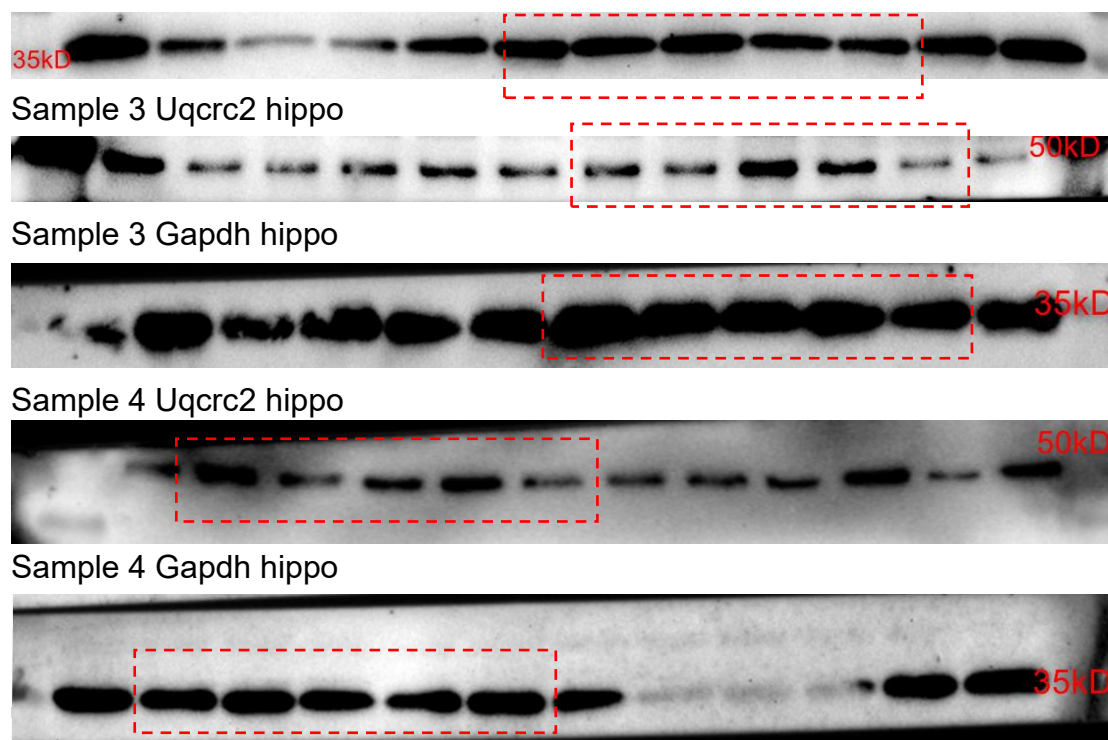
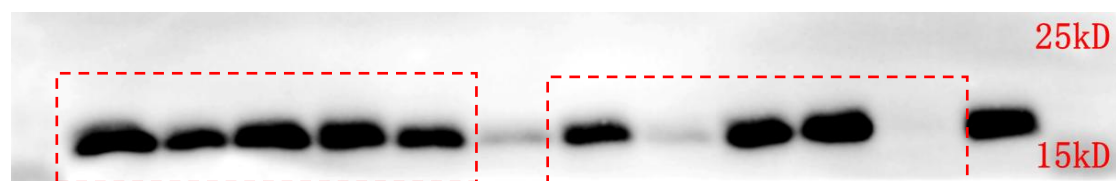
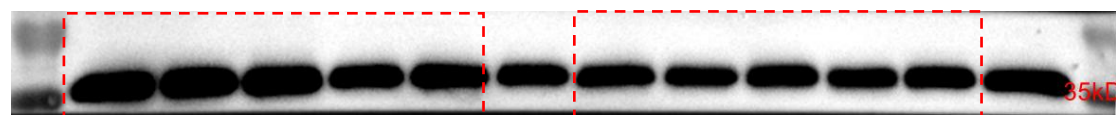


Figure 3a. Mtco2

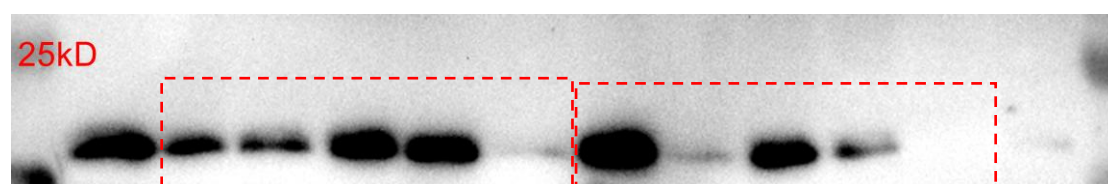
Sample 1 MtCO2 cortex+Hippo



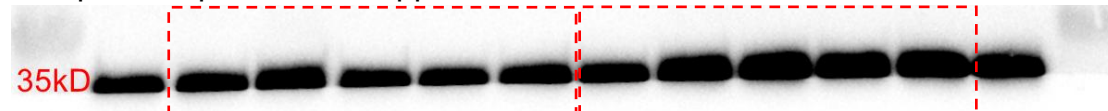
Sample 1 Gapdh Cortex+Hippo



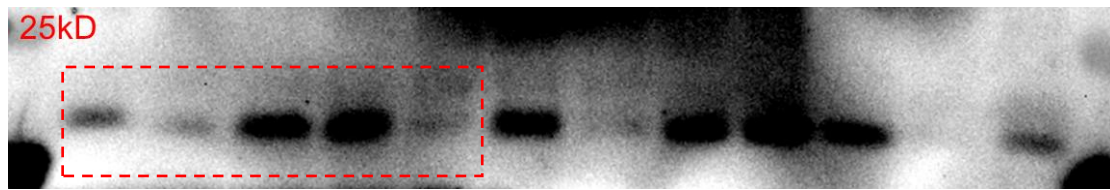
Sample 2 MtCO2 cortex+Hippo



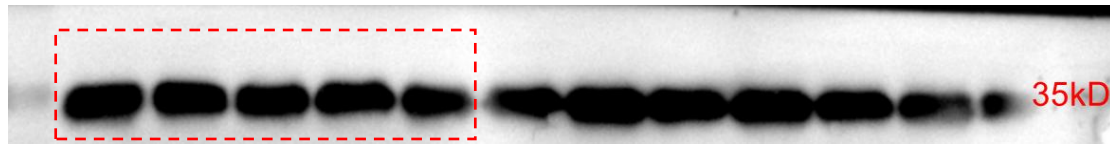
Sample 2 Gapdh cortex+Hippo



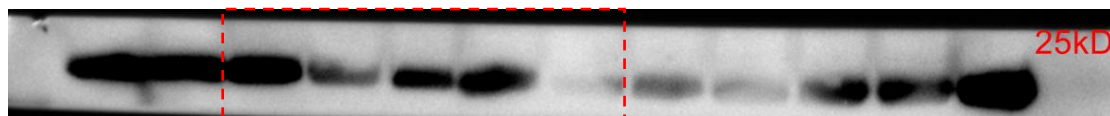
Sample 3 MtCO2 cortex



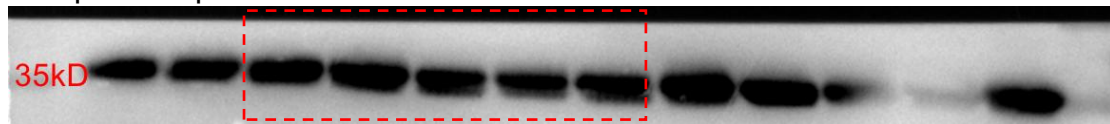
Sample 3 Gapdh cortex



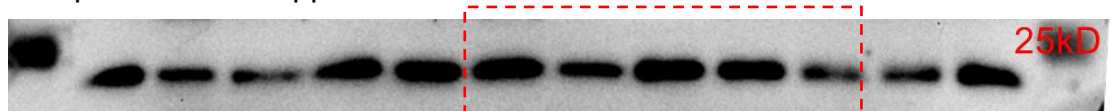
Sample 4 MtCO2 cortex



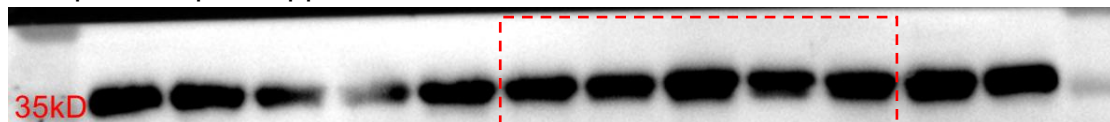
Sample 4 Gapdh cortex



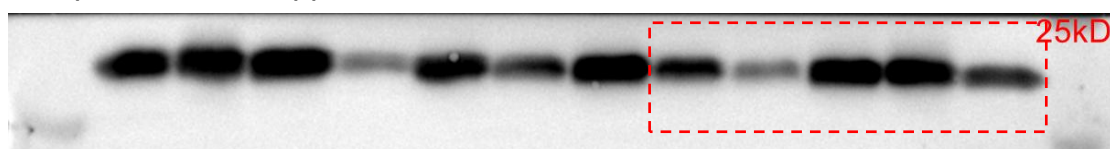
Sample 3 MtCO2 Hippo



Sample 3 Gapdh Hippo



Sample 4 MtCO2 Hippo



Sample 4 Gapdh hippo

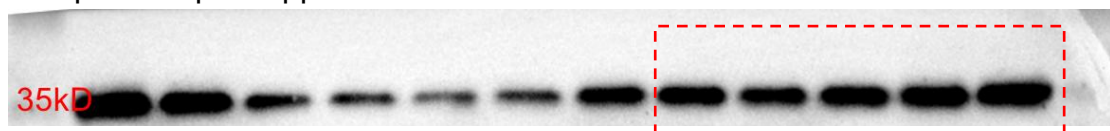
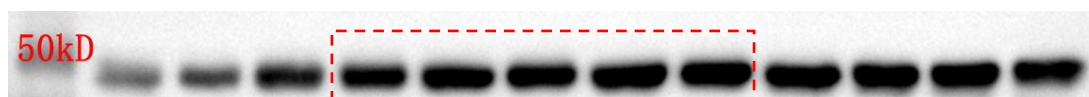


Figure 3a.Atpaf1

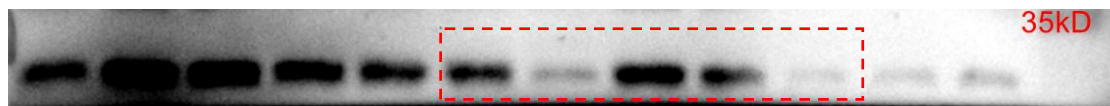
Sample -1 Atpaf1-cortex



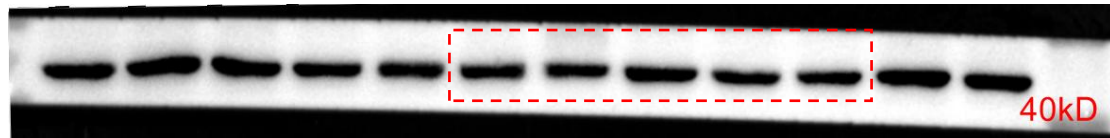
Sample -1 β Actin-cortex



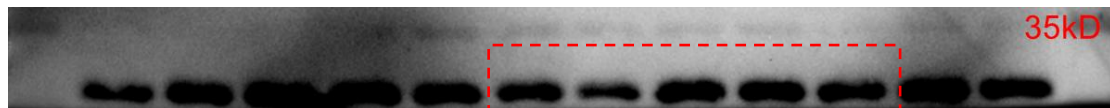
Sample -2 Atpaf1-cortex



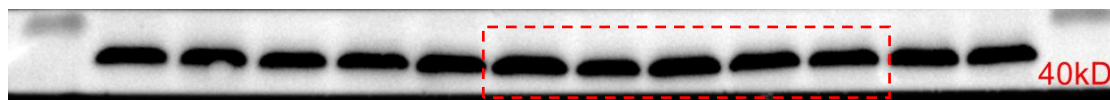
Sample -2 β Actin-cortex



Sample -3 Atpaf1-cortex



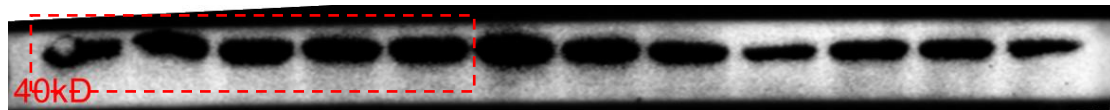
Sample -3 β Actin-cortex



Sample -4 Atpaf1-cortex



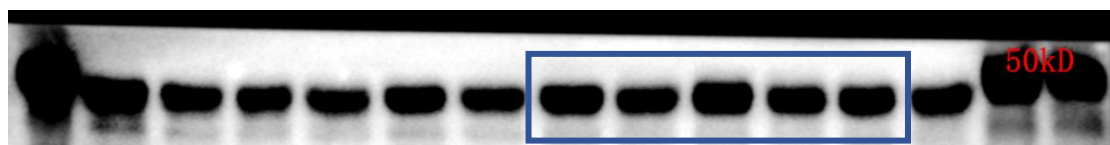
Sample -4 β Actin-cortex



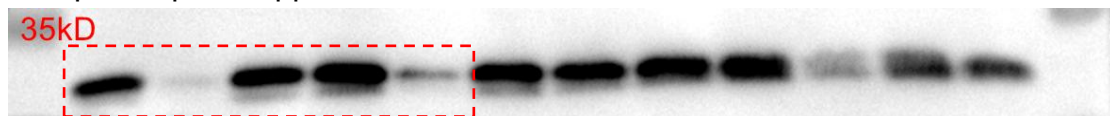
Sample -1 Atpaf1-Hippo



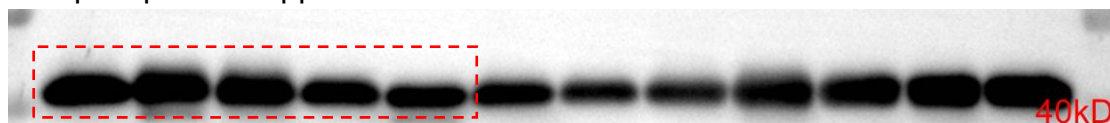
Sample -1 β Actin-Hippo



Sample2 Atpaf1-Hippo



Sample2 β Actin-Hippo



Sample3 Atpaf1-Hippo

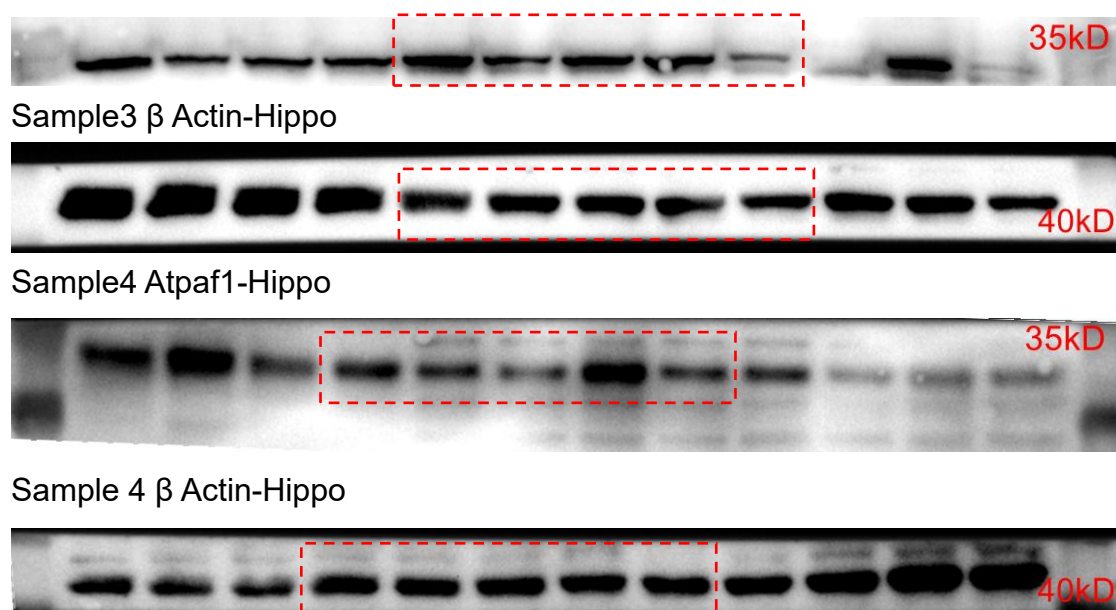
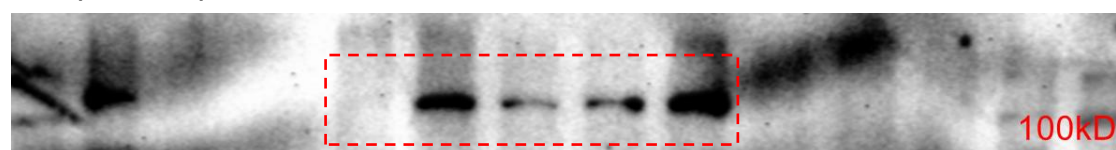


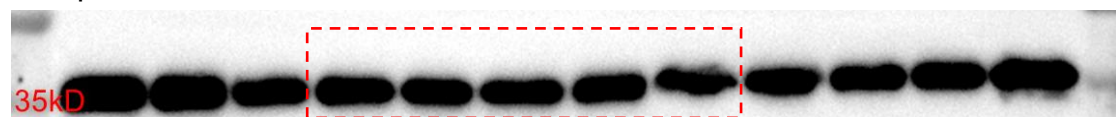
Figure 3c. Nlrp3,Caspase-1/Cleaved caspase-1,Il-18 and Il-10

Figure 3c. Nlrp3

Sample-1 Nlrp3-Cortex



Sample-1 GAPDH-Cortex



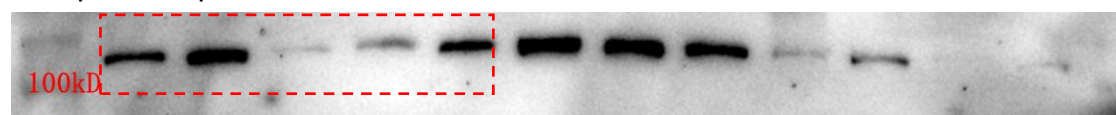
Sample-2 Nlrp3-Cortex



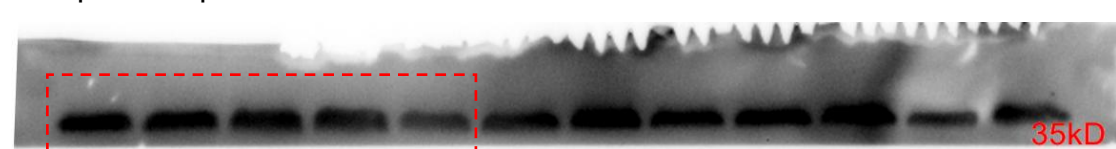
Sample-2 Gapdh-Cortex



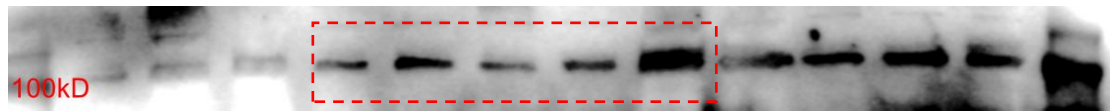
Sample-3 Nlrp3-Cortex



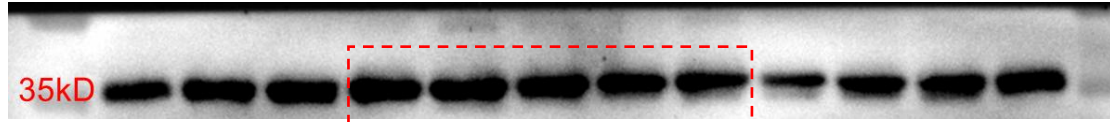
Sample-3 Gapdh-Cortex



Sample-4 Nlrp3-Cortex



Sample-4 Gapdh-Cortex



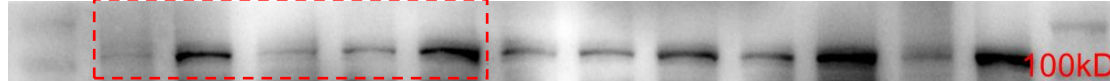
Sample 1-Nlrp3 hippo



Sample 1-Gapdh hippo



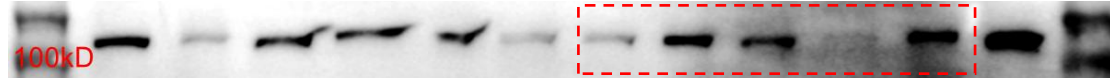
Sample 2-Nlrp3 hippo



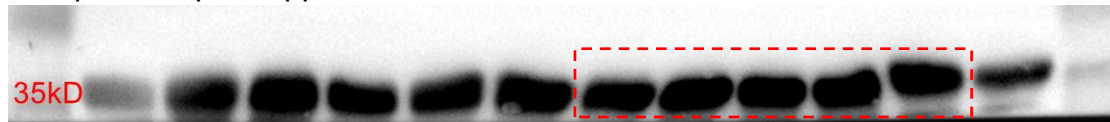
Sample 2-Gapdh hippo



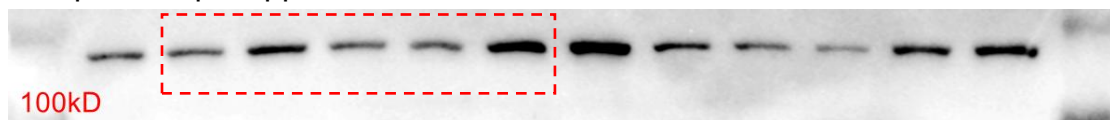
Sample 3 Nlrp3-hippo



Sample 3 Gapdh-hippo



Sample 4-Nlrp3 hippo

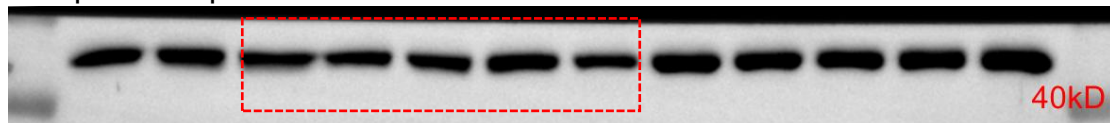


Sample 4-Gapdh hippo

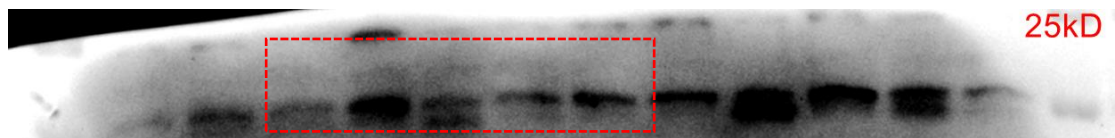


Figure 3c.caspase-1/Cleaved Caspase-1

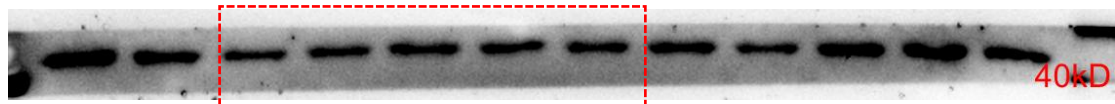
Sample 1 Caspase-1 cortex



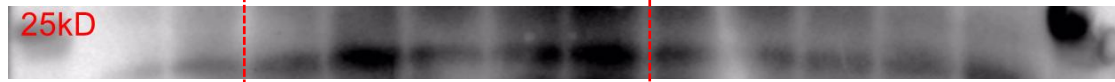
Sample 1 Cleaved Caspase-1 cortex



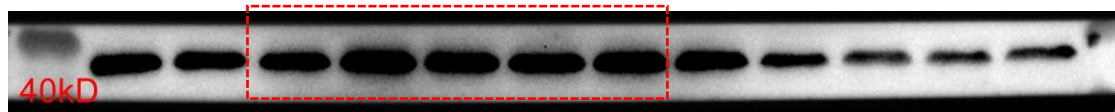
Sample 2 Caspase-1 cortex



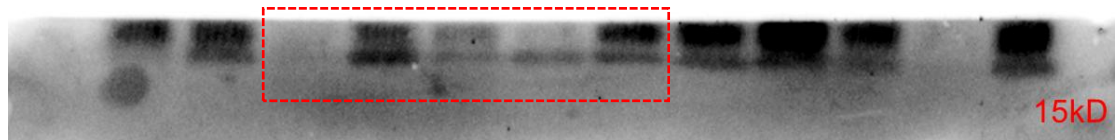
Sample 2 cortex Cleaved Caspase-1



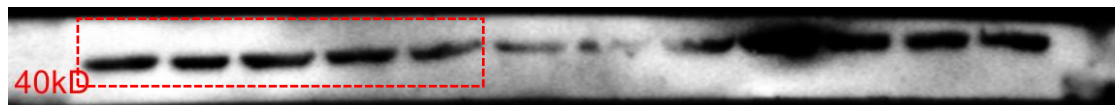
sample 3 Caspase-1 cortex



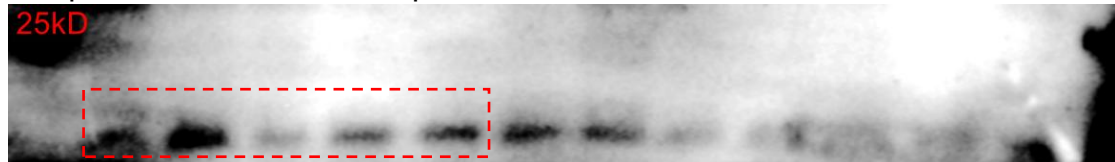
sample 3 cortex cleaved caspase-1



sample 4 Caspase-1 cortex



sample 4 cortex cleaved caspase-1



Sample 1 Caspase-1 Hippo



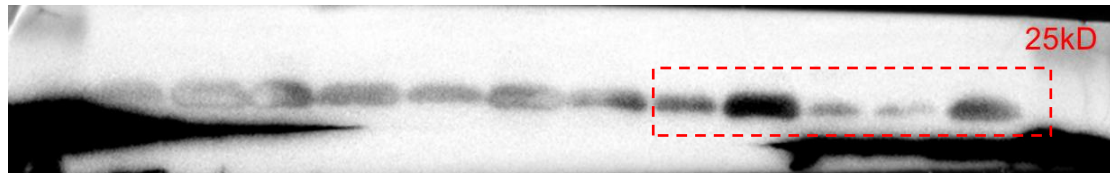
Sample 1 Cleaved Caspase-1 hippo



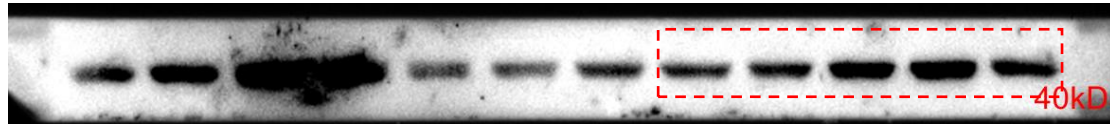
Sample 2 Caspase-1 Hippo



Sample 2 Cleaved Caspase-1 hippo



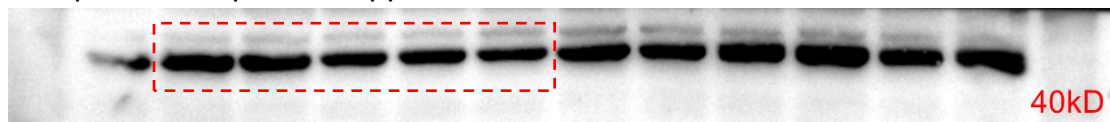
Sample 3 Caspase-1 Hippo



Sample 3 Cleaved Caspase-1 hippo



Sample 4 Caspase-1 Hippo



Sample 4 Cleaved Caspase-1 hippo

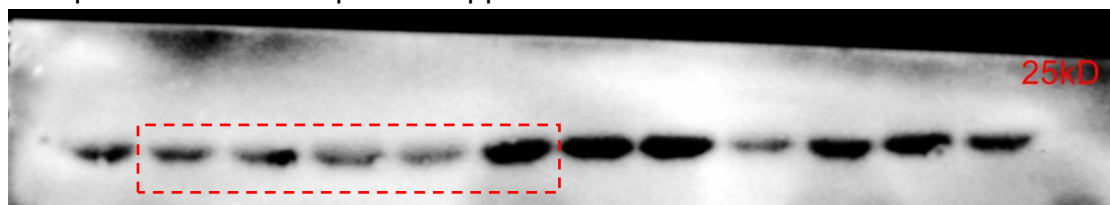
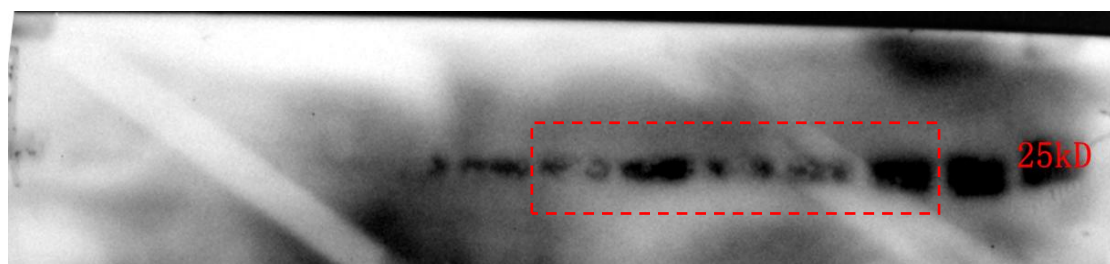
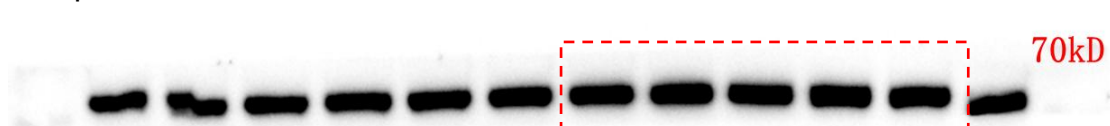


Figure 3c.II-18

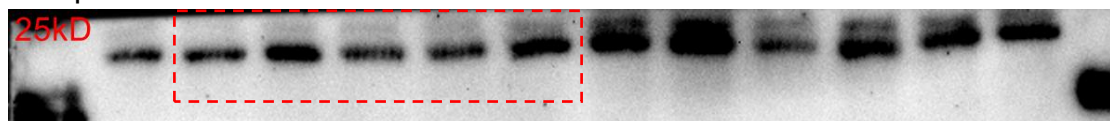
Sample-1 Il-18 cortex



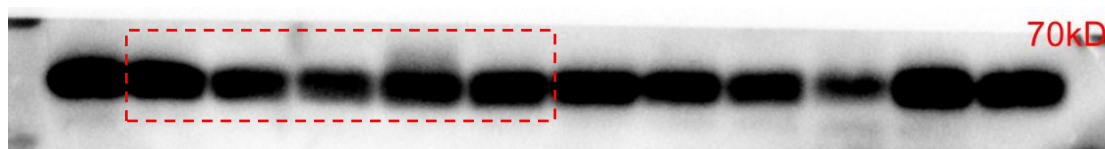
Sample-1 Tubulin-Cortex



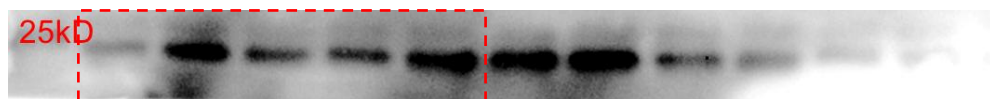
Sample-2 Il-18 cortex



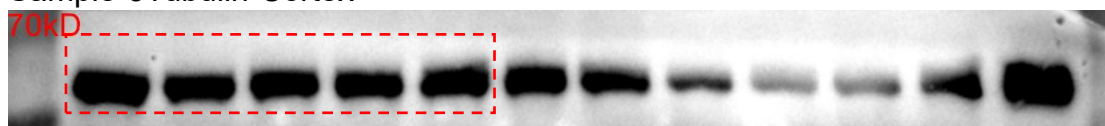
Sample-2 Tubulin-Cortex



Sample-3 II-18 cortex



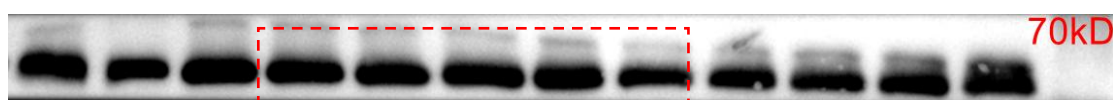
Sample-3 Tubulin-Cortex



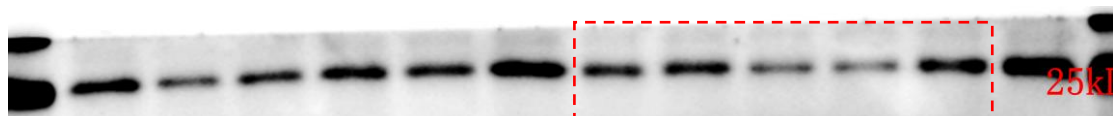
Sample-4 II-18 cortex



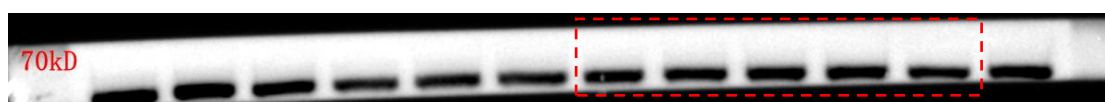
Sample-4 II-18 tubulin



Sample-1 II-18-Hippocampus



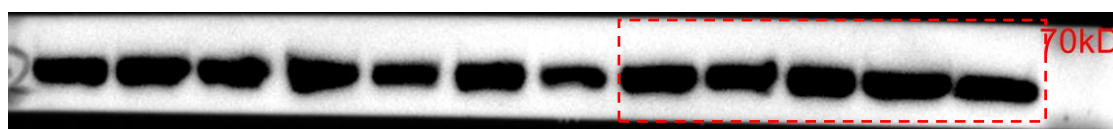
Sample-1 Tubulin-hippocampus



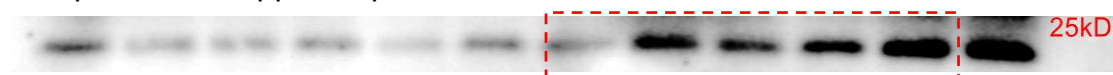
Sample-2 II-18-Hippocampus



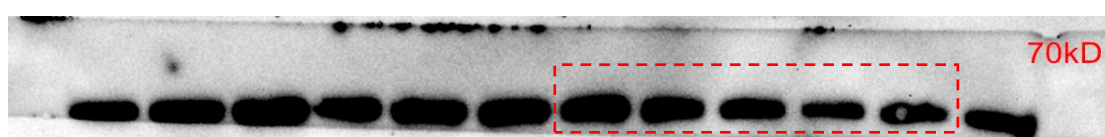
Sample-2 Tubulin-Hippocampus



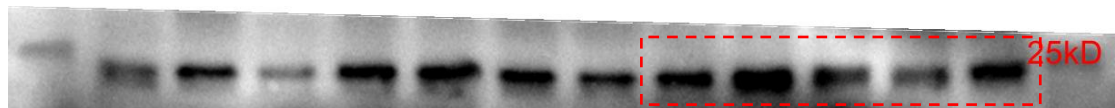
Sample-3 II-18-Hippocampus



Sample-3 Tubulin-Hippocampus



Sample-4 Il-18-Hippocampus



Sample-4 Tubulin-Hippocampus

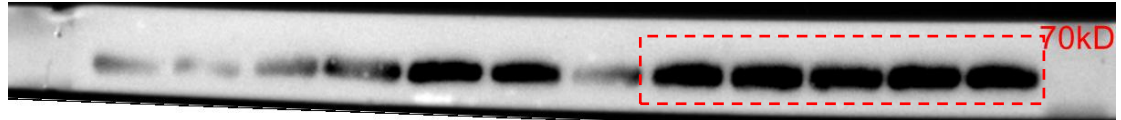


Figure 3c.II-10

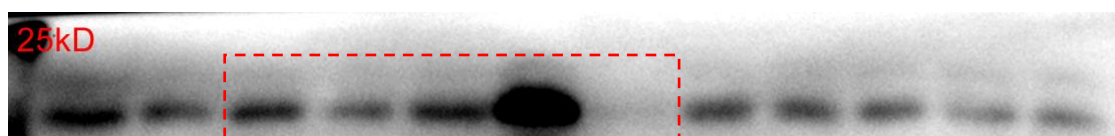
Sample-1 Il-10 Cortex



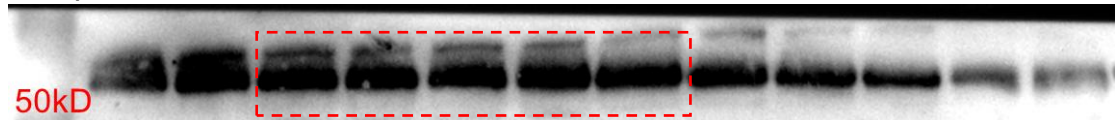
Sample-1 Tubulin-cortex



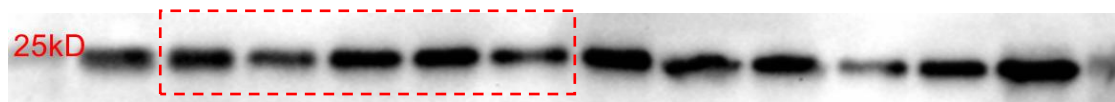
Sample-2 Il-10 Cortex



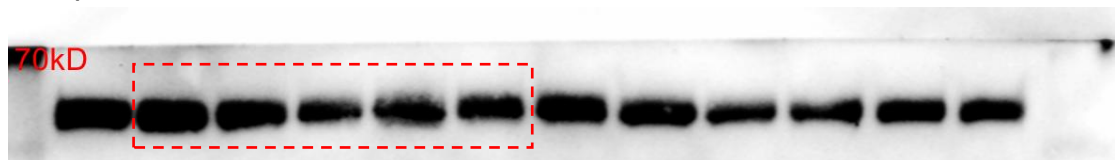
Sample-2 Tubulin Cortex



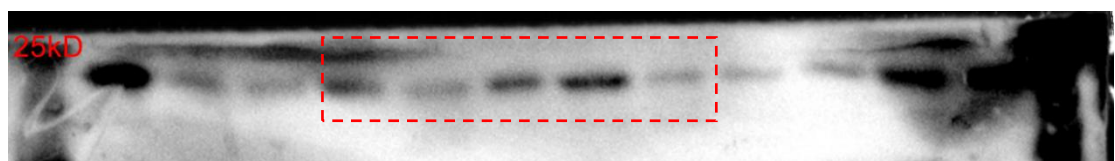
Sample-3 Il-10 Cortex



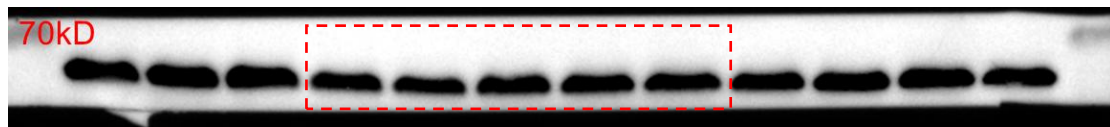
Sample-3 Tubulin Cortex



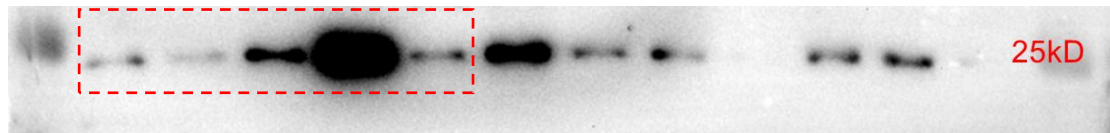
Sample-4 Il-10 Cortex



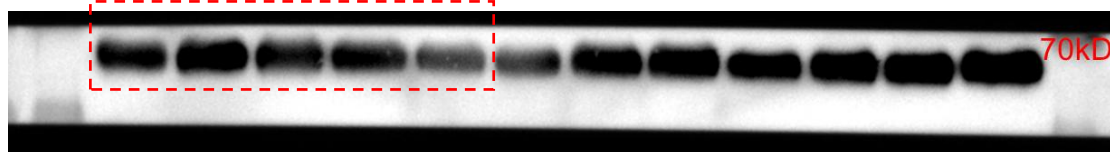
Sample-4 tubulin Cortex



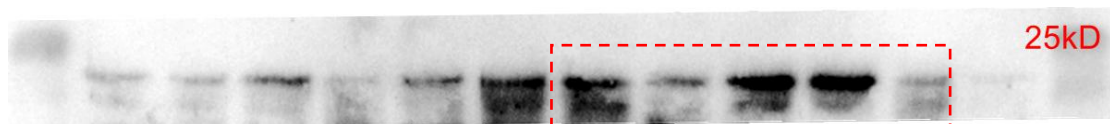
Sample-1 Il-10 hippo



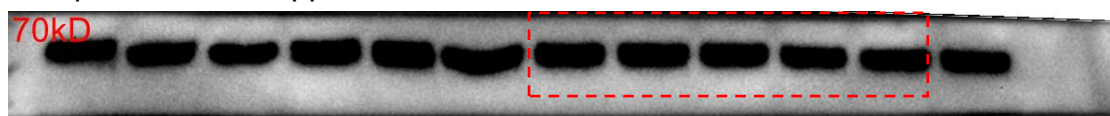
Sample-1 Tubulin hippo



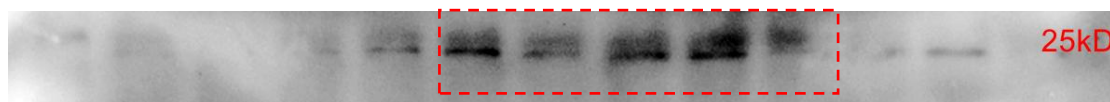
Sample-2 Il-10 hippo



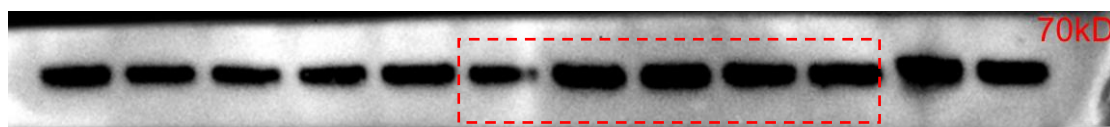
Sample-2 Tubulin hippo



Sample-3 Il-10 hippo



Sample-3 Tubulin hippo



Sample-4 Il-10 hippo



Sample-4 Tubulin hippo

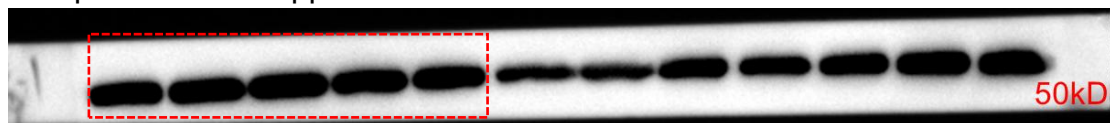
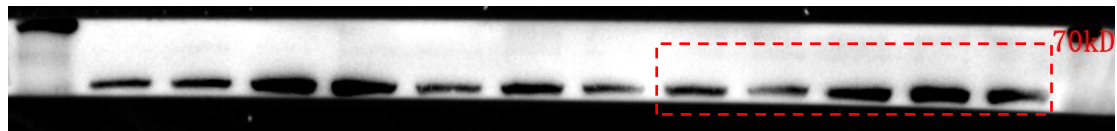


Figure 5.

Lanes within the red dotted boxes, arranged left to right: Sham, oA β group, Oleic Acid (OA)+oA β group, Oleic Acid (OA)+oA β +Rapamycin (Rap) group, Oleic Acid (OA)+oA β +Chloroquine(CQ) group.

Figure 5d. Atg5

Sample-1 Atg5



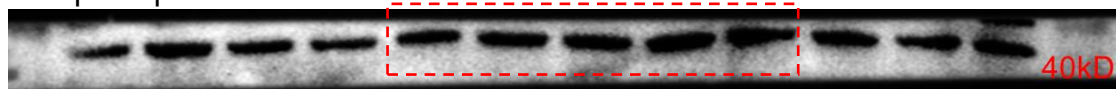
Sample-1 β Actin



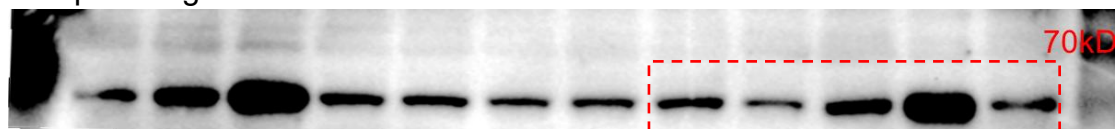
Sample-2 Atg5



Sample-2 β Actin



Sample-3 Atg5



Sample-3 β Actin

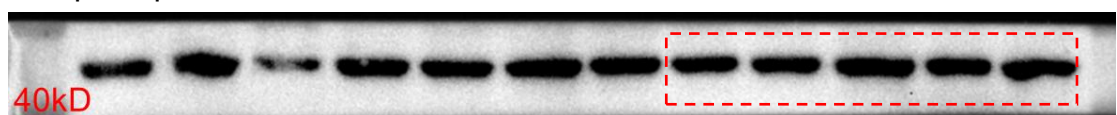
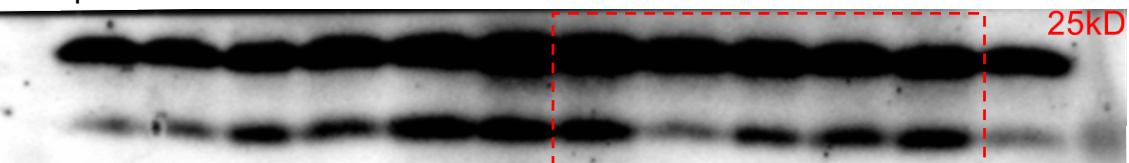


Figure 5f. Lc3II/Lc3I

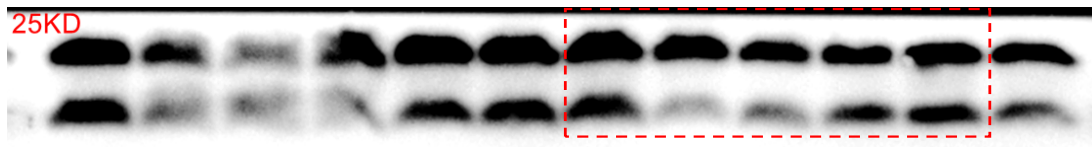
Sample 1-Lc3II/Lc3I



Sample 2-Lc3II/Lc3I



Sample 3-Lc3II/Lc3I



Sample 3- β -actin

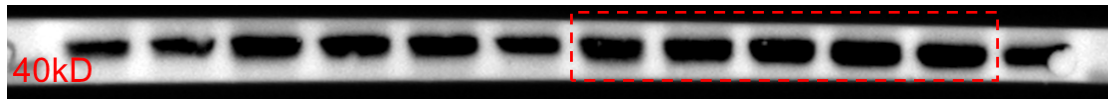
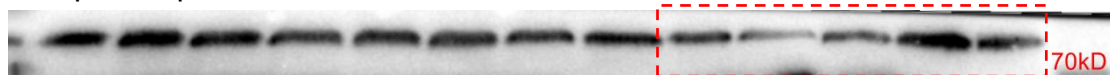
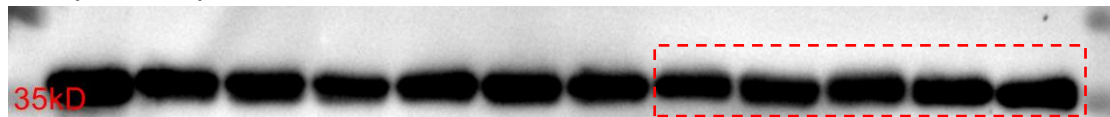


Figure 5h. Cpt1a

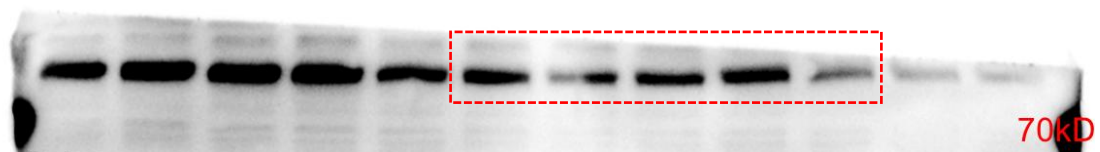
Sample 1-Cpt1a



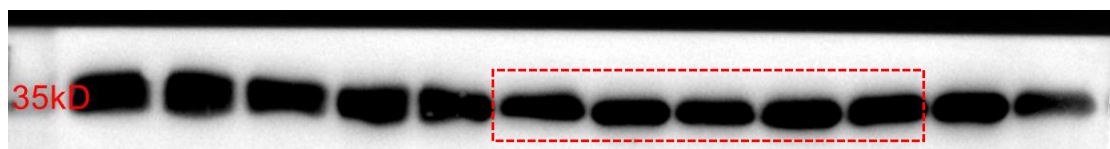
Sample 1-Gapdh



Sample 2-Cpt1a



Sample 2-Gapdh



Sample 3-Cpt1a

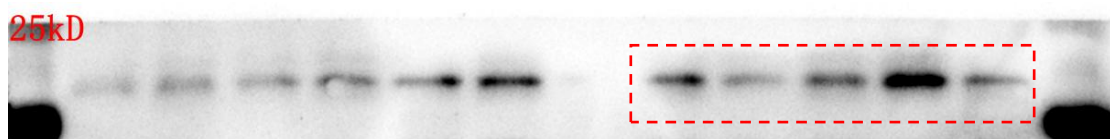


Sample 3-Gapdh

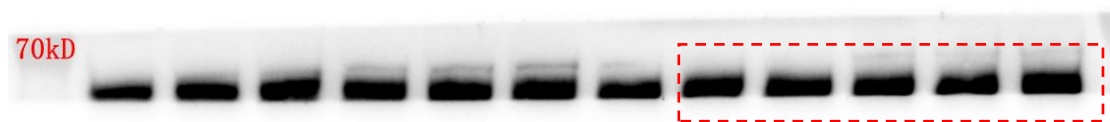


Figure 5j. Ndufb10

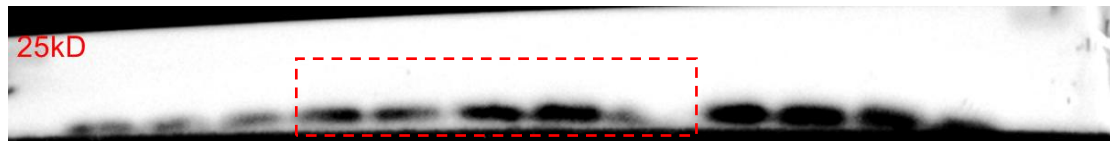
Sample 1-Ndufb10



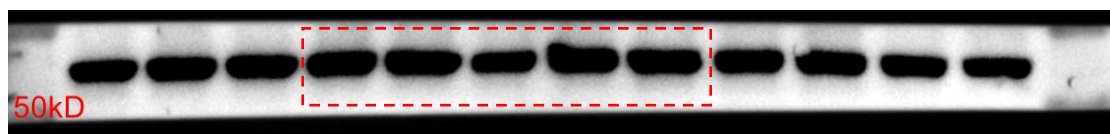
Sample 1- β tubulin



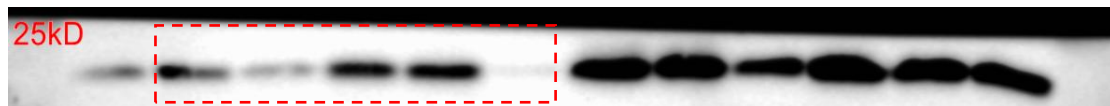
Sample 2-Ndufb10



Sample 2- β tubulin



Sample 3-Ndufb10



Sample 3- β tubulin

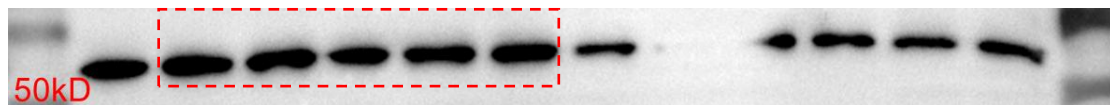
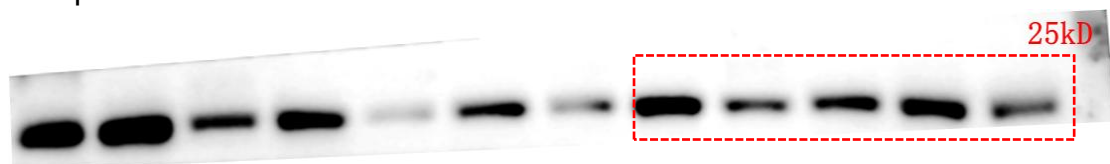
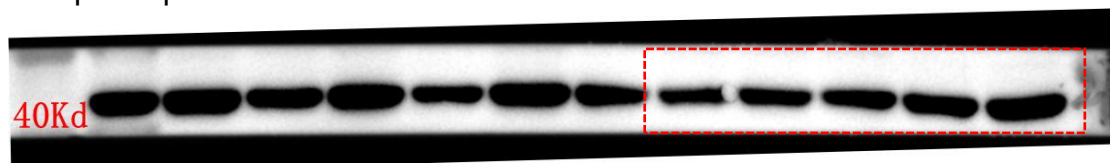


Figure 5I. Mtco2

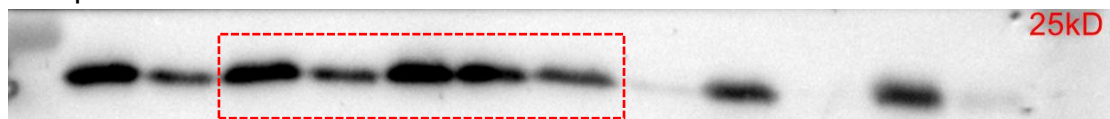
Sample -1 MtCO2



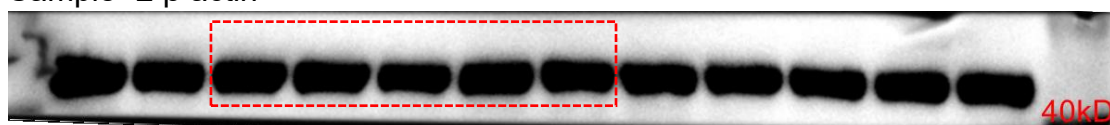
Sample -1 β actin



Sample -2 MtCO2



Sample -2 β actin



Sample -3 MtCO2

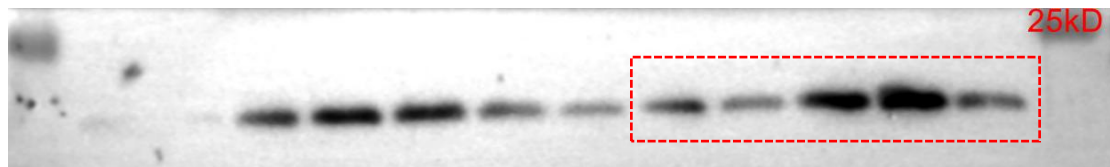
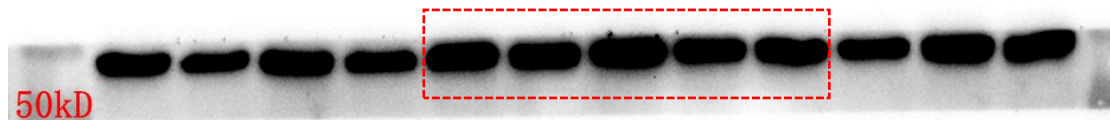
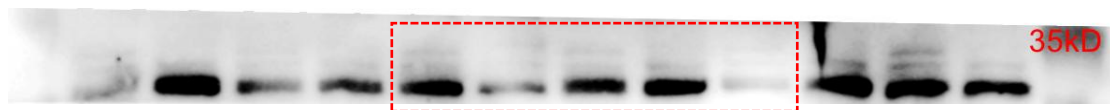


Figure 5n. Atpaf1,Sdhb,Nlrp3, Inos, Cleaved Il-1 β ,Il-10

Figure 5n. Atpaf1

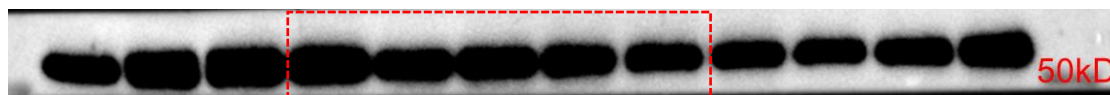
Sample 1 Atpaf1



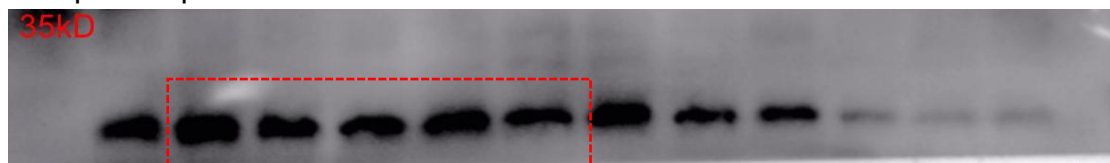
Sample 2-Atpaf1



Sample 2 β-Tubulin



Sample 3 Atpaf1



Sample 3 β-Tubulin

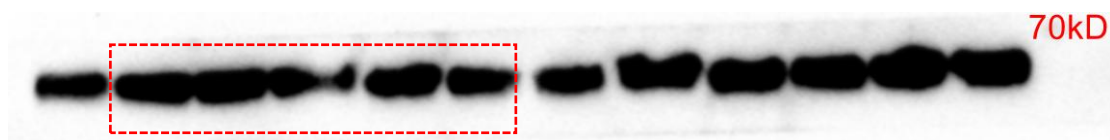
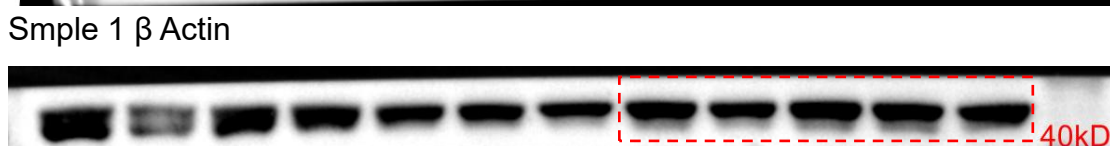
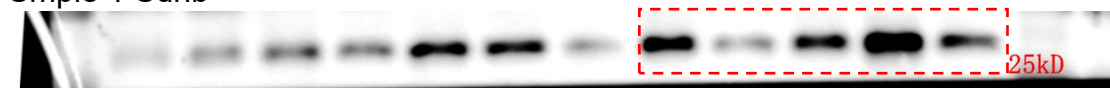
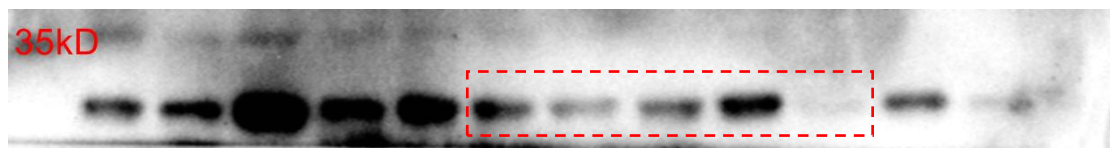


Figure 5n. Sdhb

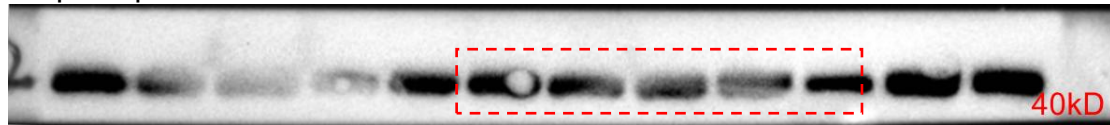
Smple 1 Sdhb



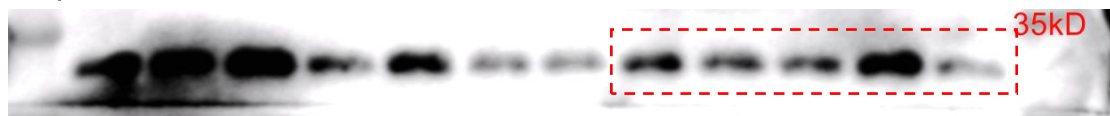
Smple 2 Sdhb



Smple 2 β Actin



Smple 3 Sdhb



Smple 3 β Actin

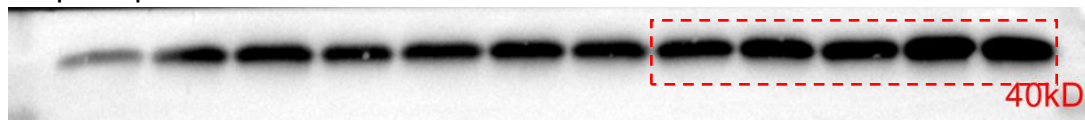
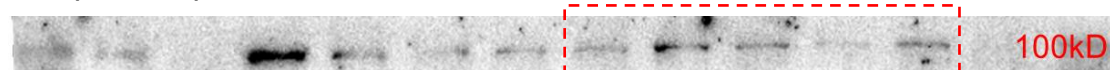
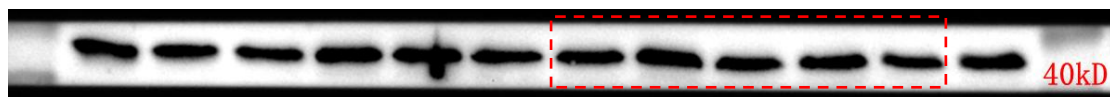


Figure 5n. Nlrp3

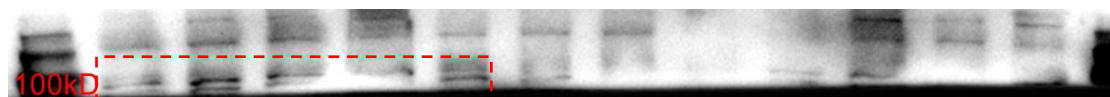
Sample 1 Nlrp3



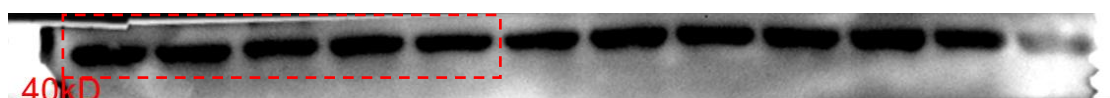
Sample 1 β -Actin



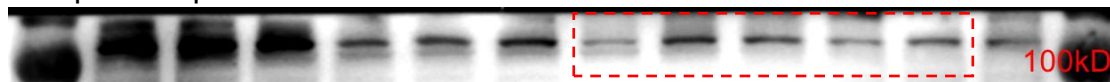
Sample 2 Nlrp3



Sample 2 β -Actin



Sample 3 Nlrp3



Sample 3 β -Actin

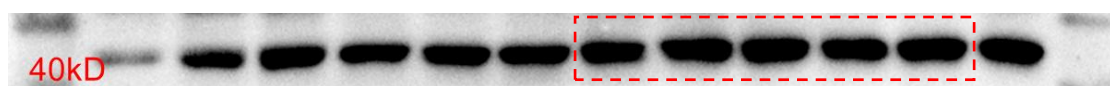
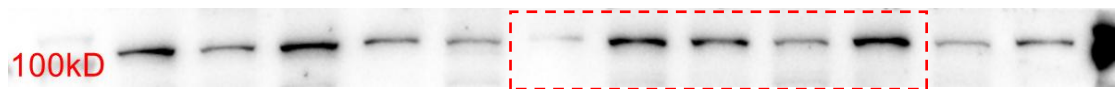
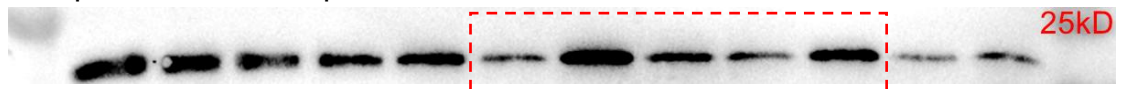


Figure 5n. Inos, Cleaved Il-1 β

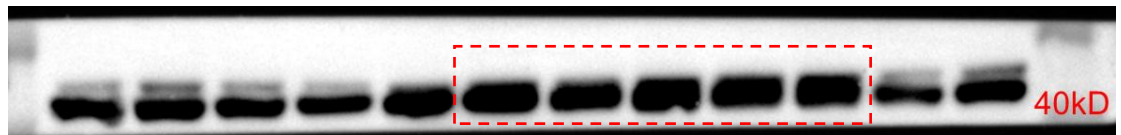
Sample 1 Inos



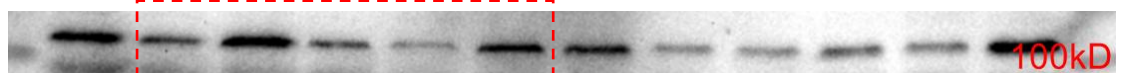
Sample 1 Cleaved II-1β



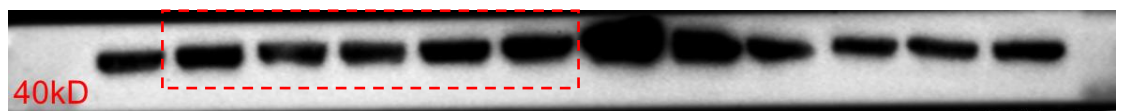
Sample 1 β-Actin



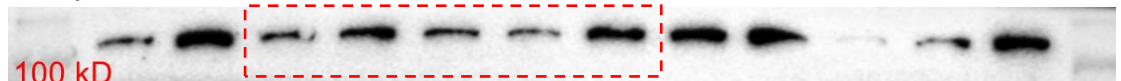
Sample 2 Inos



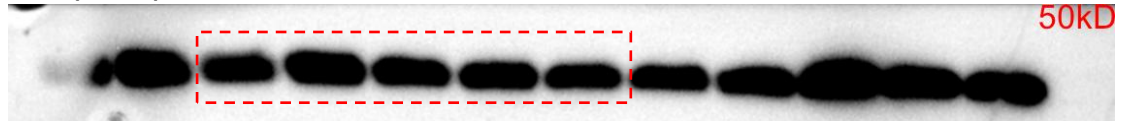
Sample 2 β-Actin



Sample 3 Inos



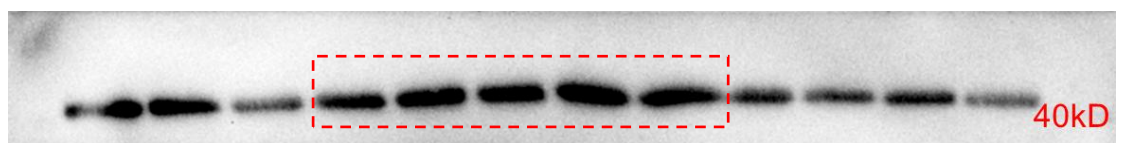
Sample 3 β-Actin



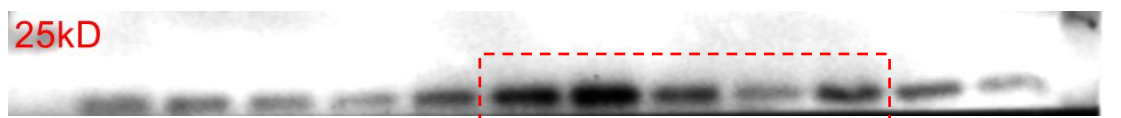
Sample 2 Cleaved II-1β



Sample 2 β-Actin



Sample 3 Cleaved II-1β



Sample 3 β-Actin

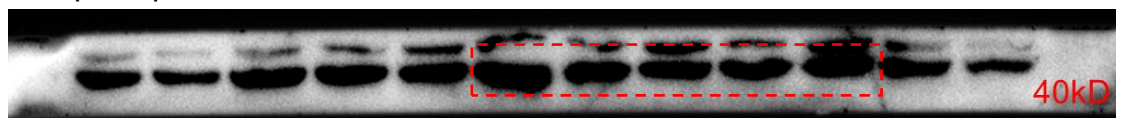
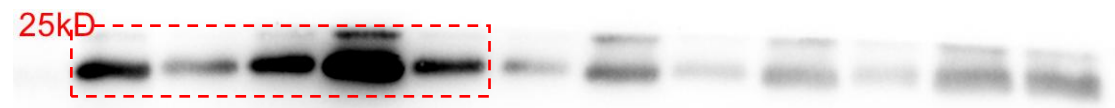
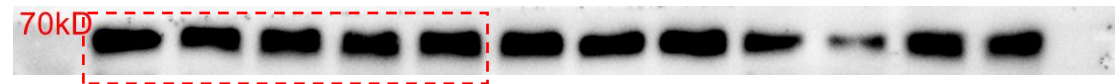


Figure 5n. II-10

Sample 1 II-10



Sample 1 β -tubulin



Sample 2 II-10



Sample 2 β -tubulin



Sample 3 II-10



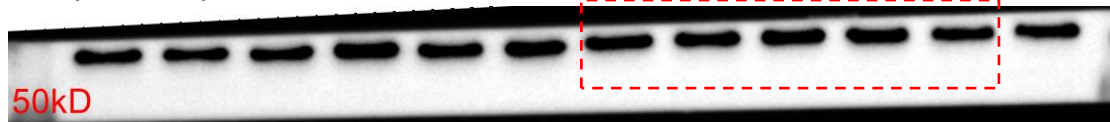
Sample 3 β -tubulin



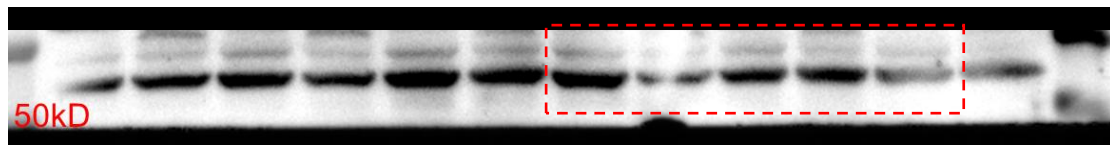
Figure 6a. p-Ampka/Ampka for mice brain.

Lanes within the red dotted boxes, arranged left to right: WT group, Control-5xFAD group, PE-5xFADgroup, RNAi-Tmem9-5xFAD group, PE+OE--5xFAD group.

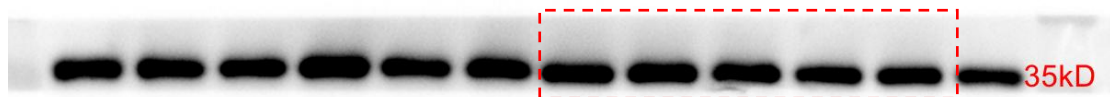
Sample-1 Ampk α -Cortex



Sample-1 p-Ampk α -Cortex



Sample-1 Gapdh-Cortex



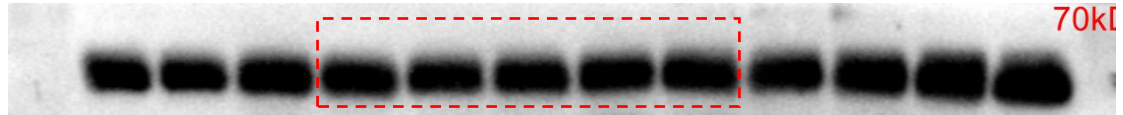
Sample-2 Ampk α -Cortex



Sample-2 p-Ampk α -Cortex



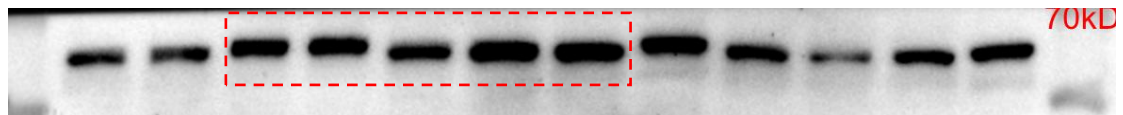
Sample-3 Ampk α -Cortex



Sample-3 p-Ampk α -Cortex



Sample-4 Ampk α -Cortex



Sample-4 p-Ampk α -Cortex



Sample-1 Ampk α -Hippo

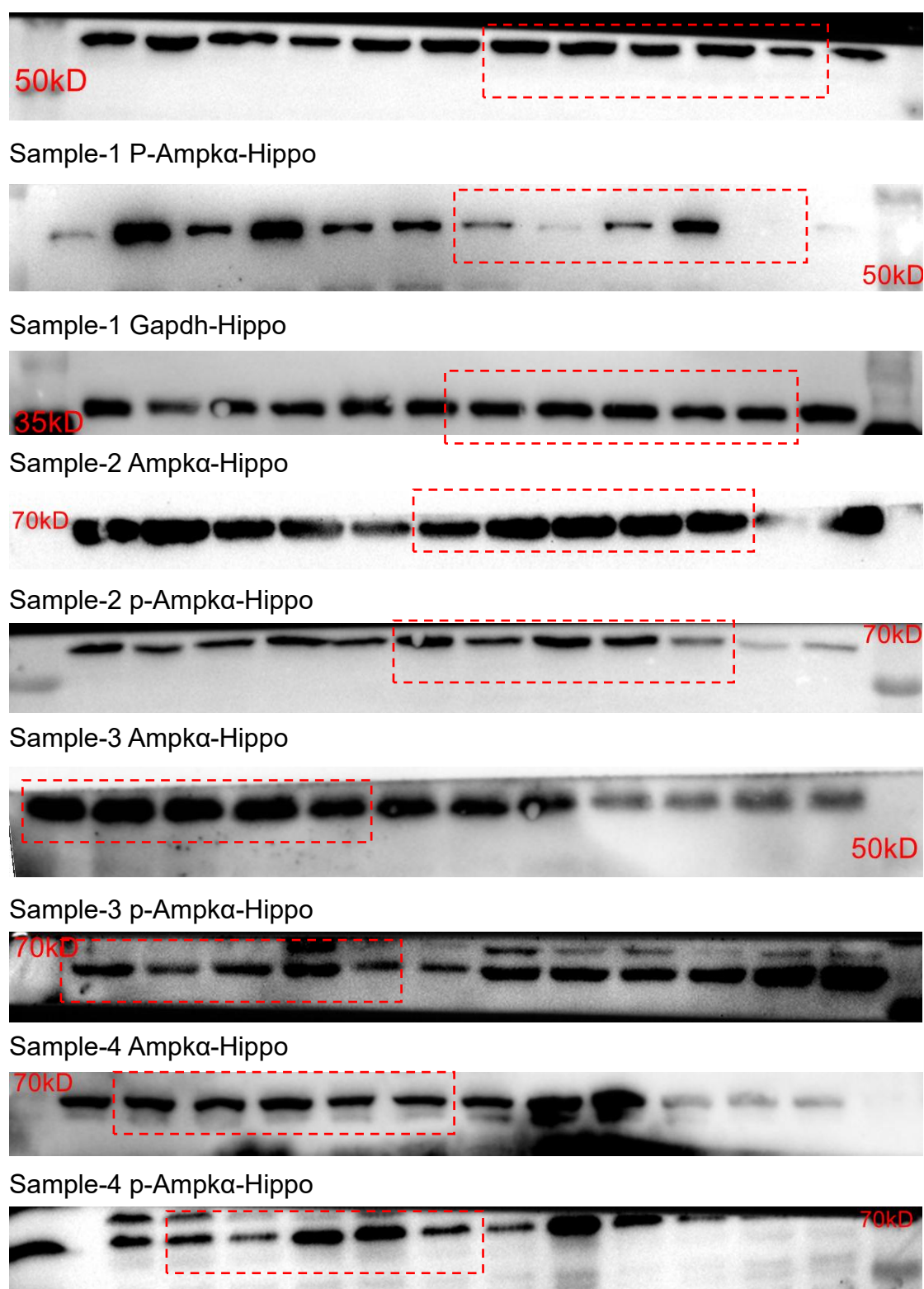
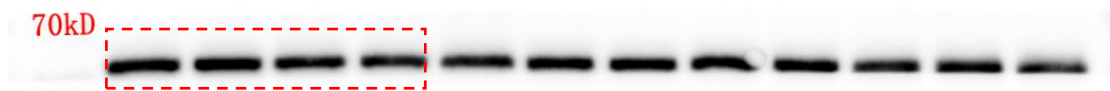


Figure 6c. p-Ampkα/Ampkα for BV2 cells with OA and oAβ treatment.

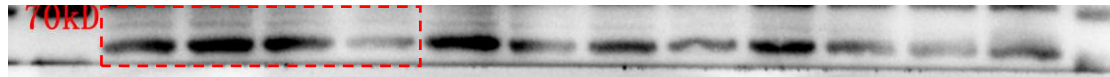
Lanes within the red dotted boxes, arranged left to right: Scramble, ShRNA-Tmem9, Negative control and Tmem9 overexpression groups.

Sample 1 AMPKα

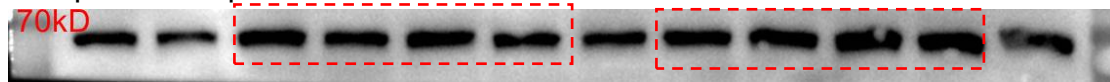
Sample 1 AMPK α



Sample 1 p-AMPK α



Sample 2+Sample-3 AMPK α



Sample 2+Sample-3 p-AMPK α

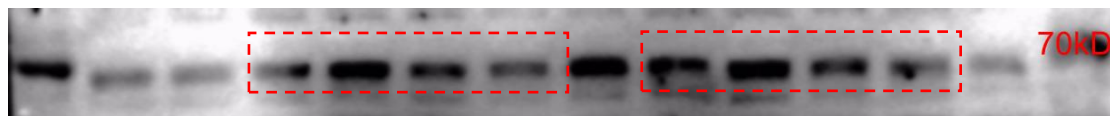
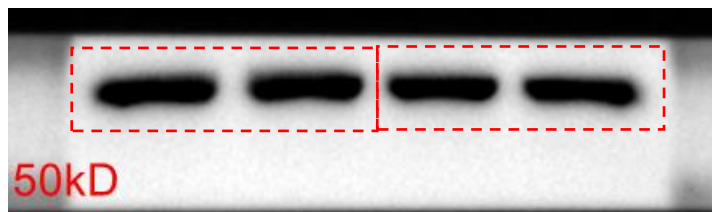


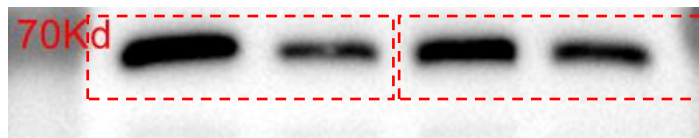
Figure 6e-q. BV2 microglial cells transfected with Tmem9-specific shRNA and subsequently treated with oleic acid (OA), dimethyl sulfoxide (DMSO), or Compound C prior to oligomeric amyloid-beta (oA β) exposure. Lanes within the red dotted boxes, arranged left to right: DMSO group, Compound C (CC) group.

Figure 6e. p-Ampk α /Ampk α

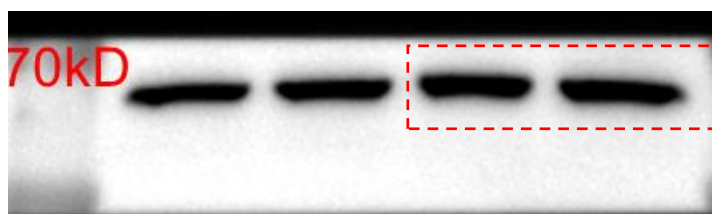
Sample 1+Sample 2 AMPK α



Sample 1+Sample 2 P-AMPK α



Sample 3 AMPK α



Sample 3 p-AMPK α

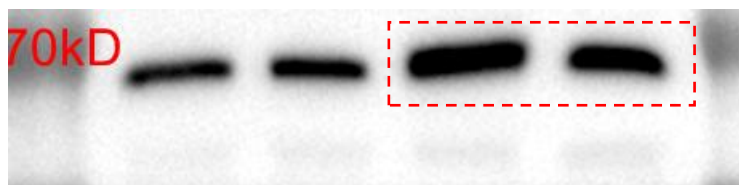
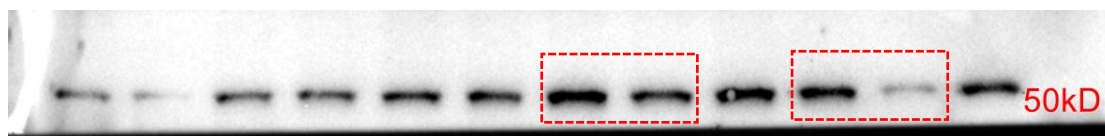
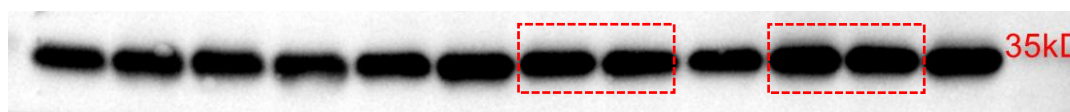


Figure 6 f. Atg5,P62, Lc3II/Lc3I
Atg5

Smapple 1+ Sample 2 Atg5



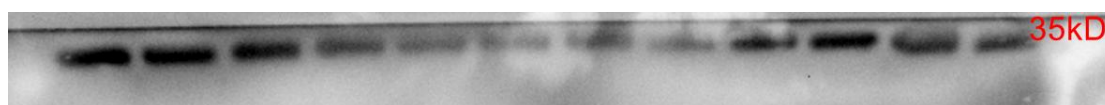
Smapple 1+ Sample 2 Gapdh



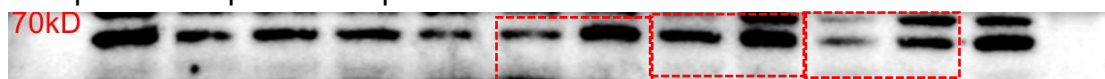
Sample 3 Atg5



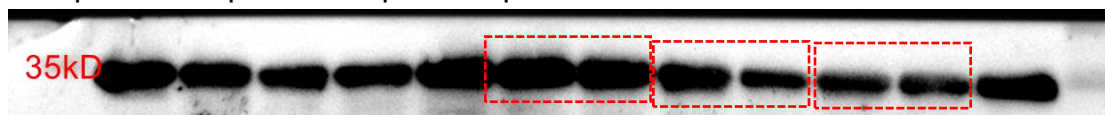
Sample 3 Gapdh



Sample 1+Sample 2+Sample 3 P62

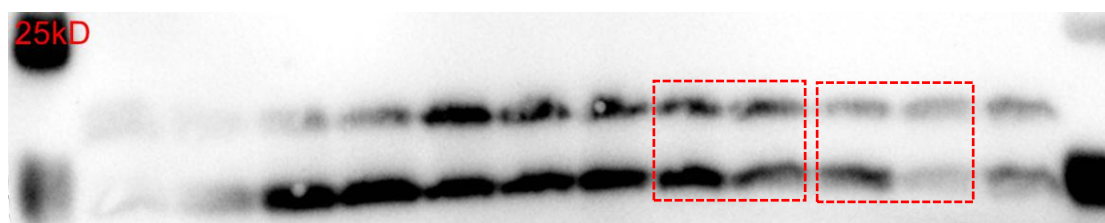


Sample 1+Sample 2+Sample 3 Gapdh



Lc3II/Lc3I

Smapple 1+Sample 2 LC3



Sample 3 LC3

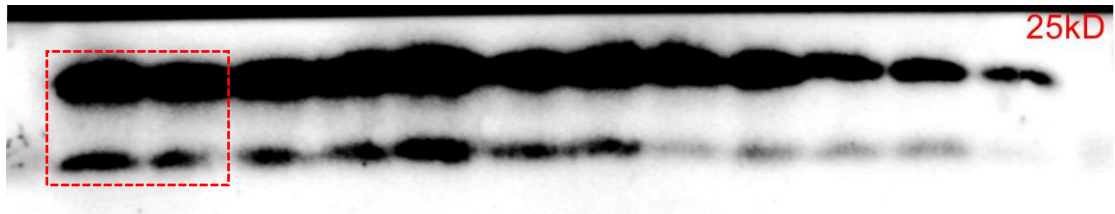
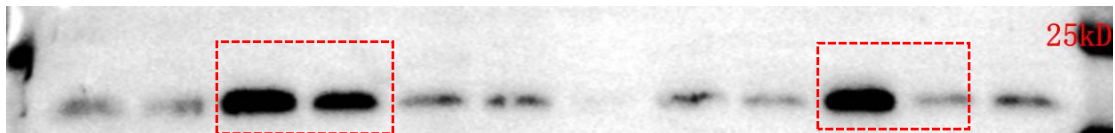
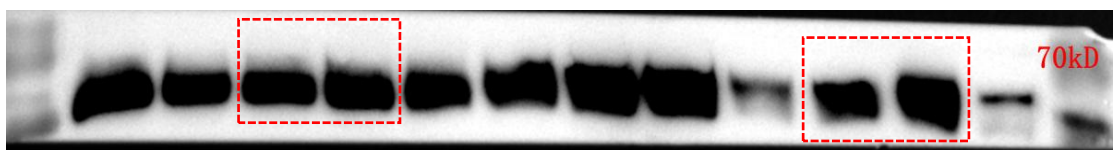


Figure 6 h.
Sample 1+ Sample 2 Ndufb10



Sample 1+ Sample 2 β Tubulin



Sample 3 Ndufb10



Sample 3 β Tubulin

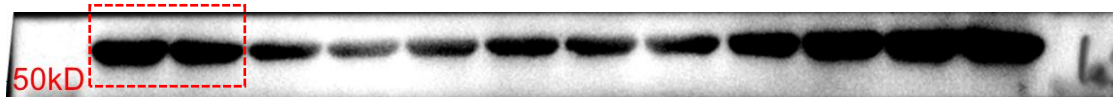
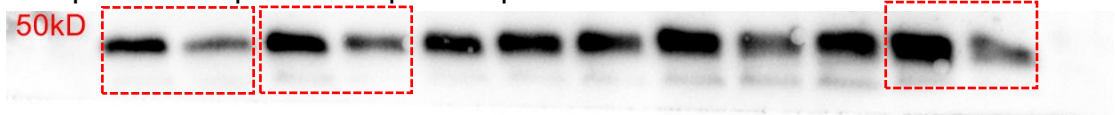


Figure 6.i
Sample 1+ Sample 2+Sample 3 Uqcrc2



Sample 1+ Sample 2+Sample 3 Gapdh

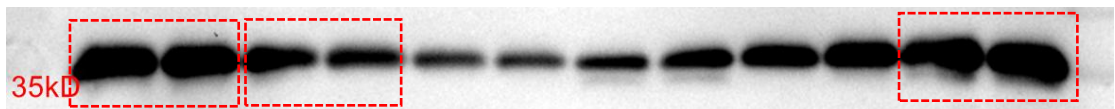
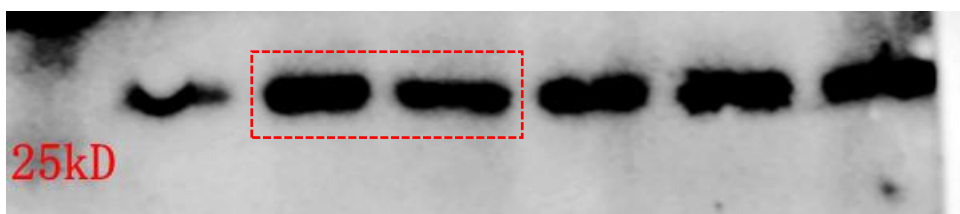
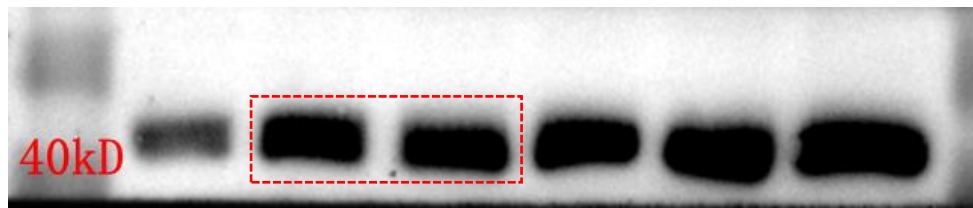


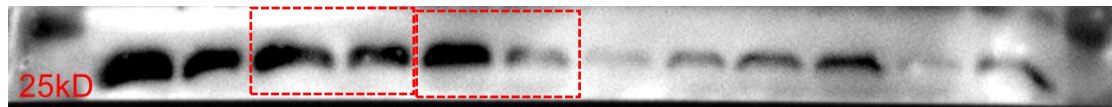
Figure 6.j
Sample 1 Sdhb



Sample 1 β actin



Sample 2+Sample 3 Sdhb



Sample 2+Sample 3 β actin

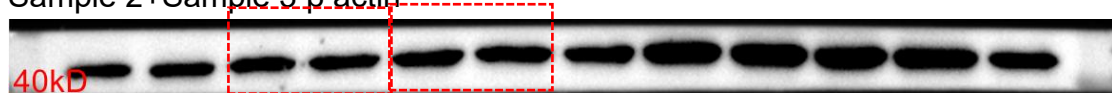
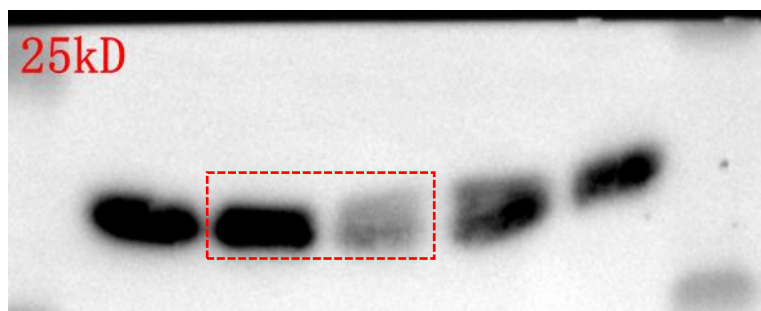
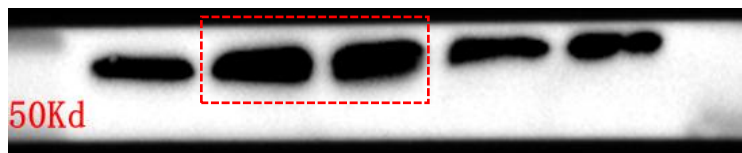


Figure 6.k

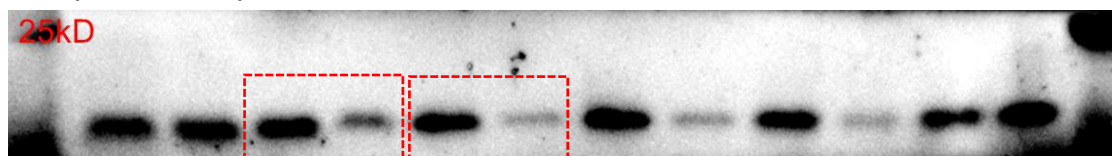
Sample 1 MtCO2



Sample 1 β -Tubulin



Sample 2+ Sample 2MtCO2



Sample 1+Sample 2 β -Tubulin



Figure 6.l Atpaf1

Sample 1+Sample 2 Atpaf1



Sample 1+Sample 2 β -Tubulin



Sample 3 Atpaf1



Sample 3 β -Tubulin

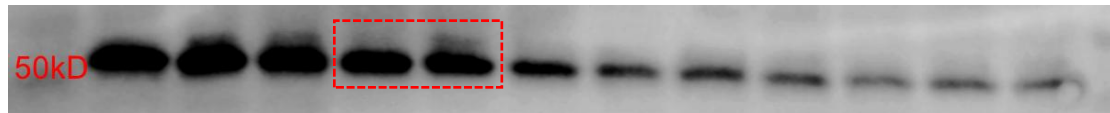
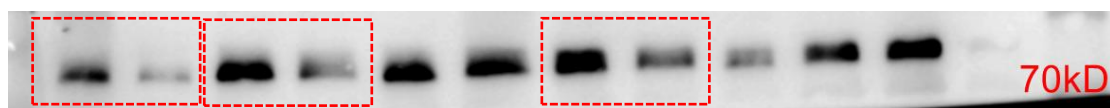


Figure 6m. CPT1A

Sample 1+Sample 2+Sample 3 CPT1A



Sample 1+Sample 2+Sample 3 β -Actin

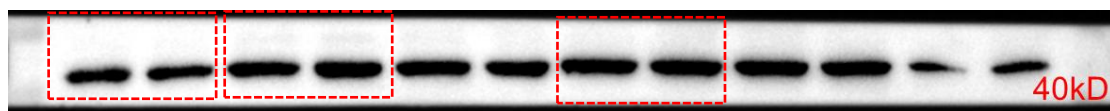
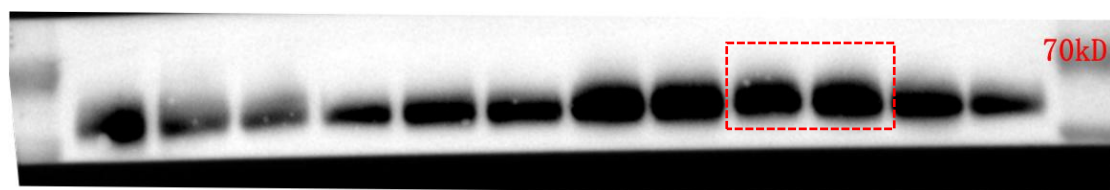


Figure 6.n: IL-10

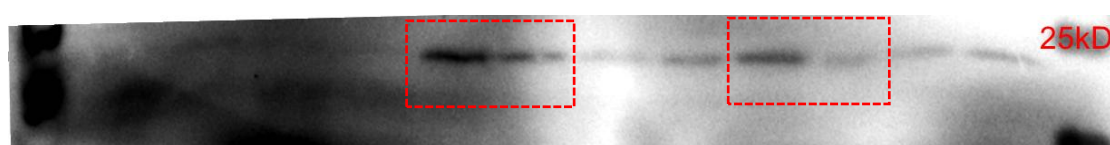
Sample 1. IL-10



Sample 1. β -Tubulin



Sample 2+3. IL-10



Sample 2+3. β -Tubulin

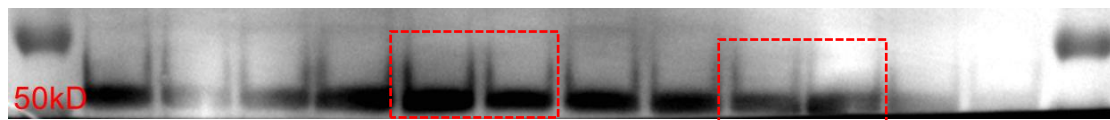
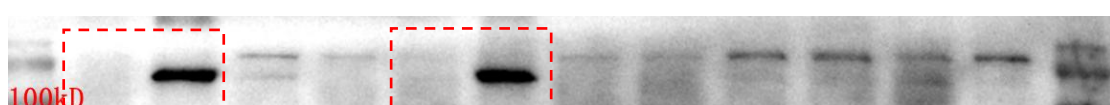
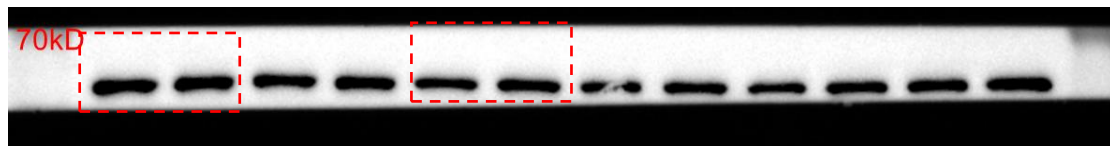


Figure 6.o

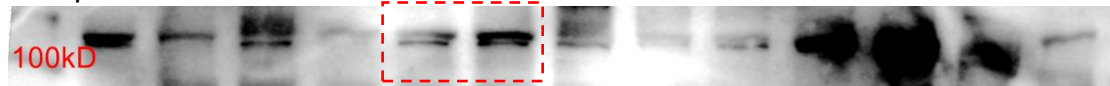
Sample 1+Sample 2 Inos



Sample 1+Sample 2 β -Tubulin



Sample 3 Inos



Sample 3 β -Tubulin

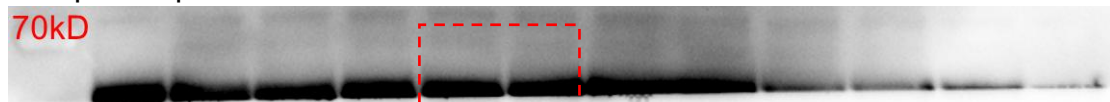
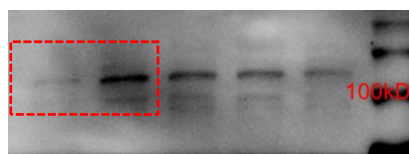
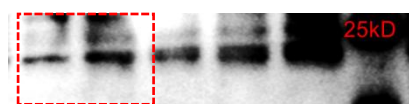


Figure 6.p

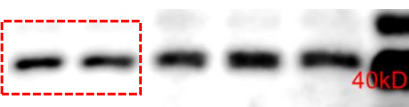
Sample 1. Nlrp3



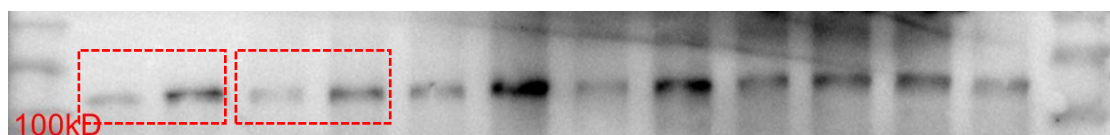
Sample 1. IL-18



Sample 1. β -actin



Sample 2+Sample 3. Nlrp3

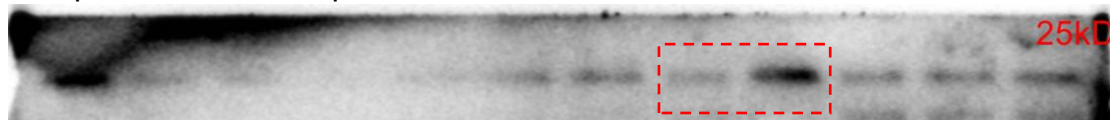


Sample 2+Sample 3. β -actin

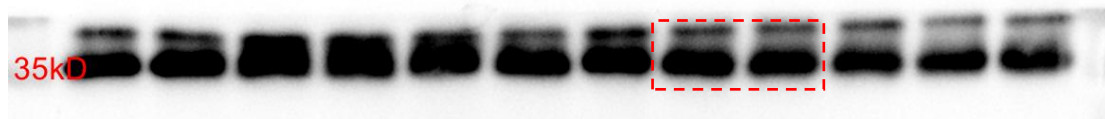


Figure 6.q

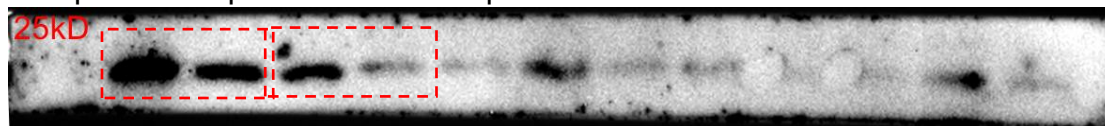
Sample 1. Cleaved IL-1 β



Sample 1. Gapdh



Sample 2+Sample 3. Cleaved II-1 β



Sample 2+Sample 3. Gapdh

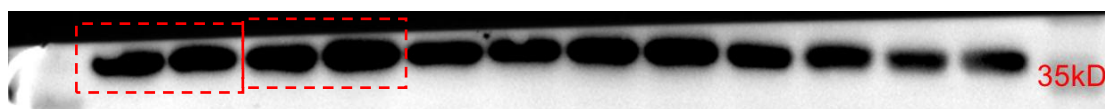
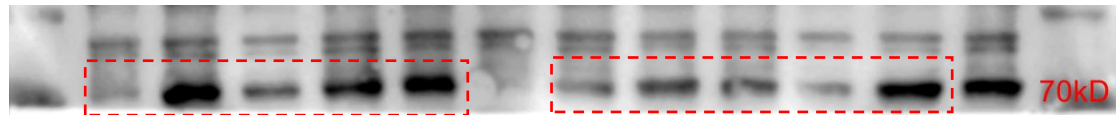


Figure 8. p-Tau,Tau

Lanes within the red dotted boxes, arranged left to right: WT group, Control-5xFAD group, PE-5xFAD group, RNAi-Tmem9-5xFAD group, PE+OE--5xFAD group.

Cortex

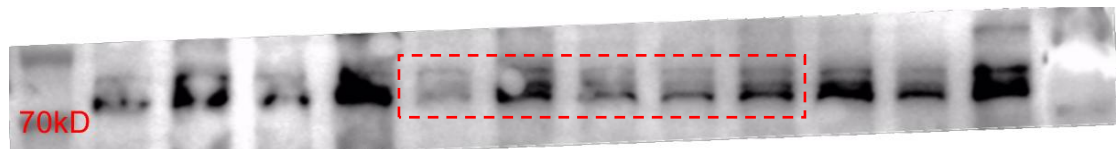
Sample 1+Sample 2 p-Tau 217 cortex



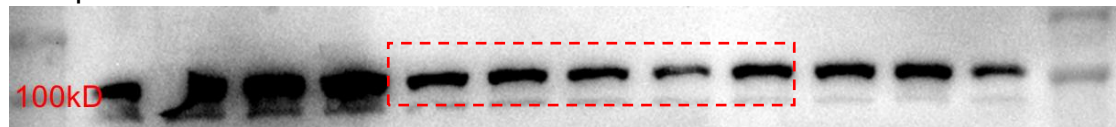
Sample 1+Sample 2 Tau cortex



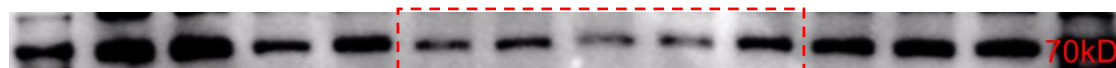
Sample 3 p-Tau 217 cortex



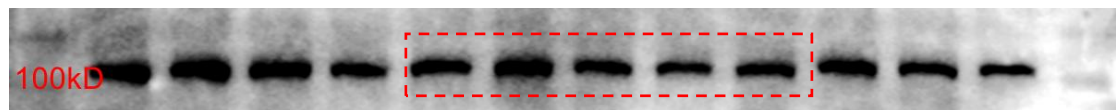
Sample 3 Tau cortex



Sample 4 p-Tau 217 cortex

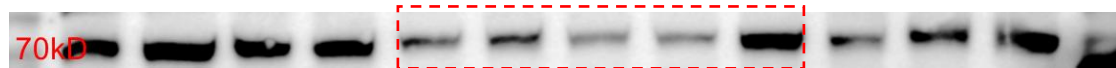


Sample 4 Tau cortex



Hippocampus

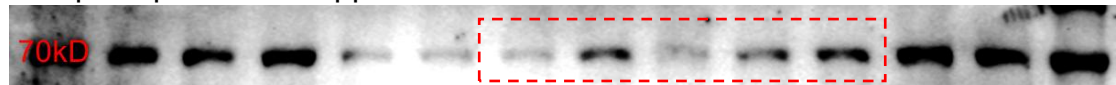
Sample 1 p-Tau 217 Hippo



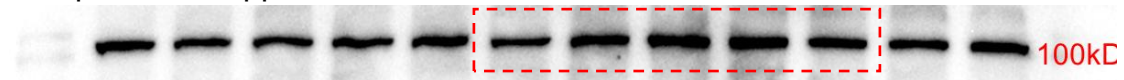
Sample 1 Tau Hippo



Sample 2 p-Tau 217 Hippo



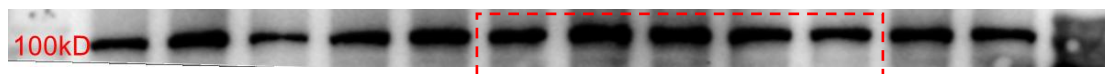
Sample 2 Tau Hippo



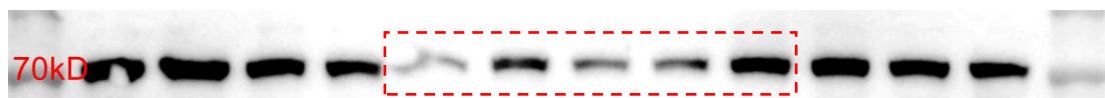
Sample 3 p-Tau 217 Hippo



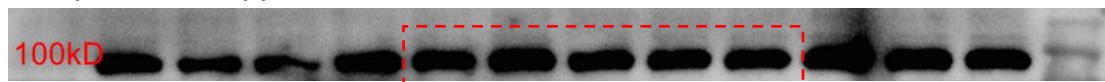
Sample 3 Tau Hippo



Sample 4 p-Tau 217 Hippo



Sample 4 Tau Hippo

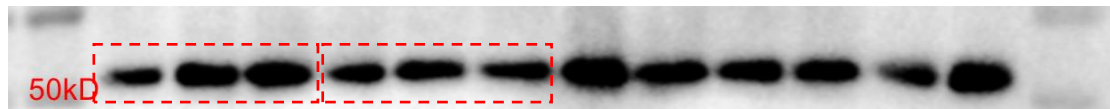


Supplementary figure 1d.

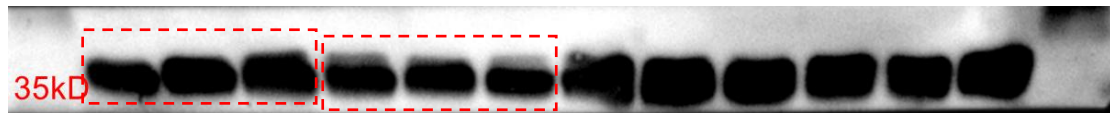
Lanes within the red dotted boxes, arranged left to right: WT group, Control-5xFAD group, PE-5xFAD group.

Atgl

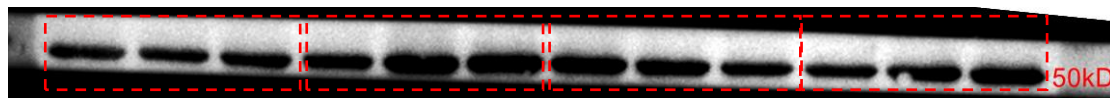
Sample 1 Atgl cortex+Hippo



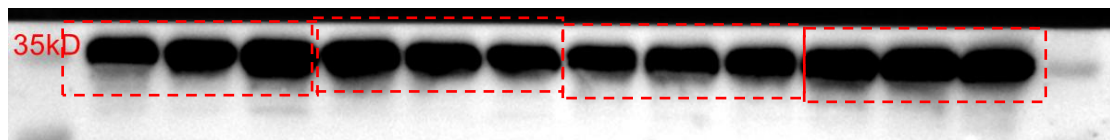
Sample 1 Gapdh cortex+Hippo



Sample 2+sample 3 Atgl cortex+Hippo

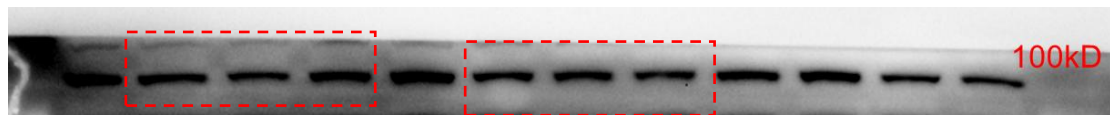


Sample 2+sample 3 Gapdh cortex+Hippo



Hsl

Sample 1 Hsl Cortex+Hippo



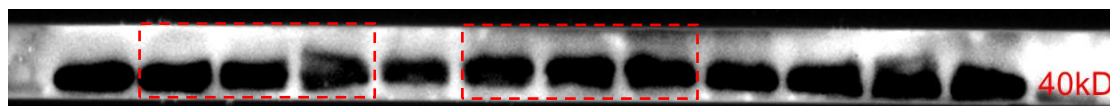
Sample 1 β -actin Cortex+Hippo



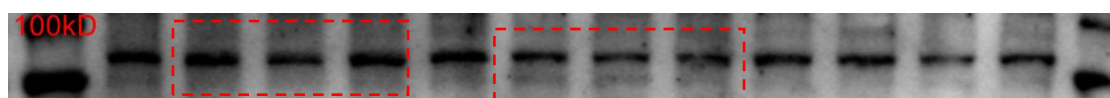
Sample 2 Hsl Cortex+Hippo



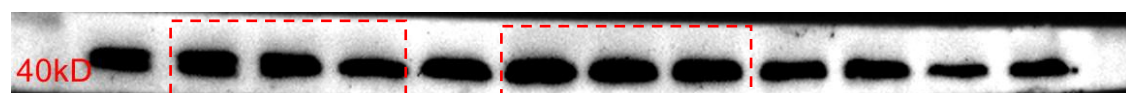
Sample 2 β -actin Cortex+Hippo



Sample 3 Hsl Cortex+Hippo



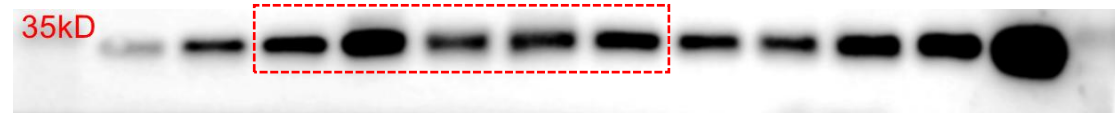
Sample 3 β -actin Cortex+Hippo



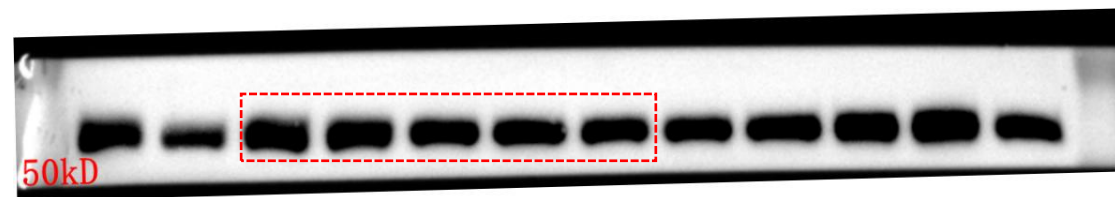
Supplementary Figure 2b. Lanes within the red dotted boxes, arranged left to right: WT, Control-5xFAD, PE-5xFAD, RNAi-Tmem9, PE+OE-Tmem9.

Cortex

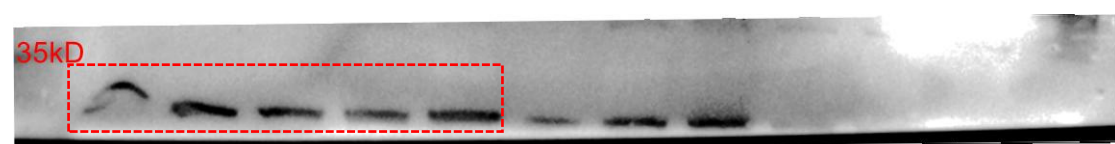
Sample 1 Tmem9-Cortex



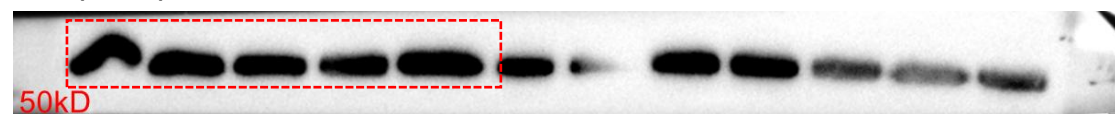
Sample 1 β -Tubulin-Cortex



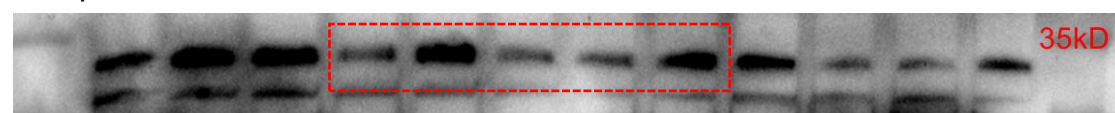
Sample 2 Tmem9-Cortex



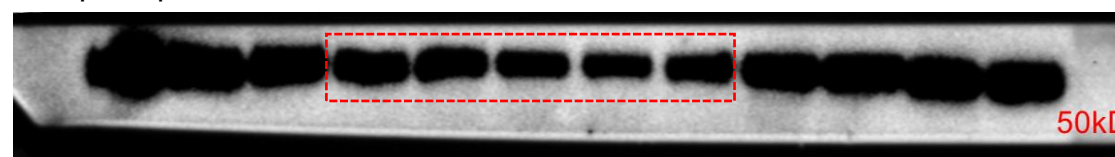
Sample 2 β -Tubulin-Cortex



Sample 3 Tmem9-Cortex



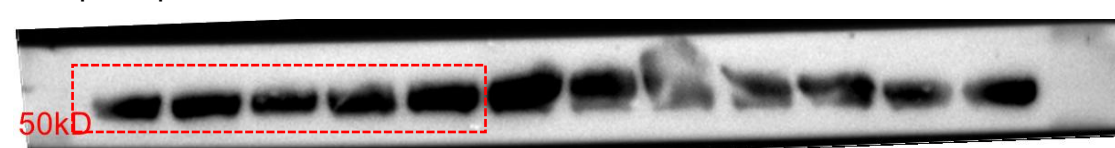
Sample 3 β -Tubulin-Cortex



Sample 4 Tmem9-Cortex

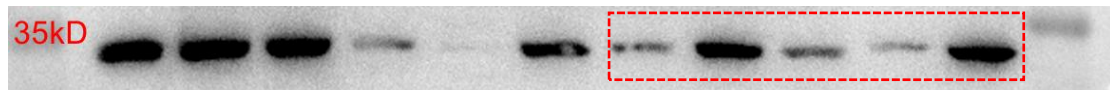


Sample 4 β -Tubulin-Cortex

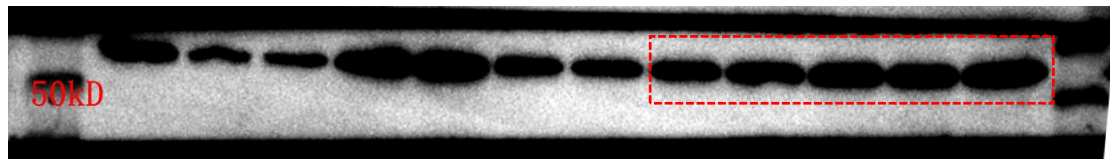


Hippocampus

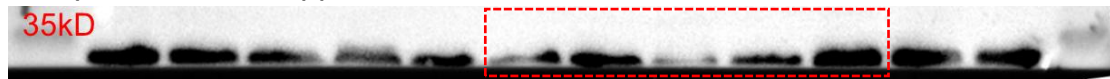
Sample 1 Tmem9-Hippo



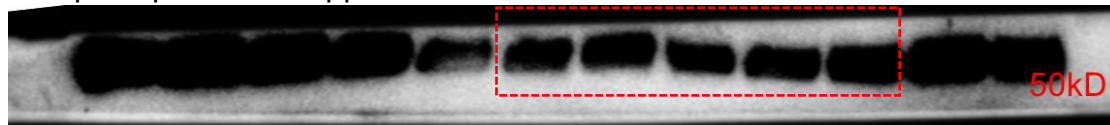
Sample 1 β -Tubulin-Hippo



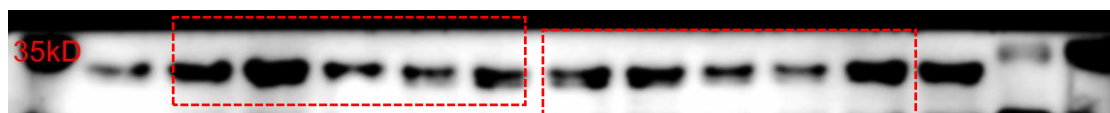
Sample 2 Tmem9-Hippo



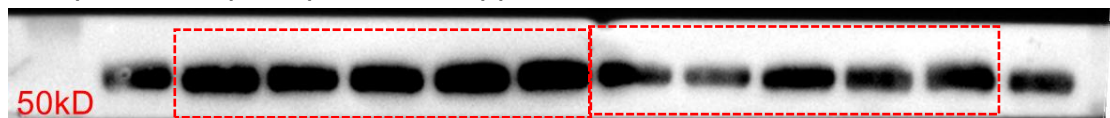
Sample 2 β -Tubulin-Hippo



Sample 3+Sample 4 Tmem9-Hippo

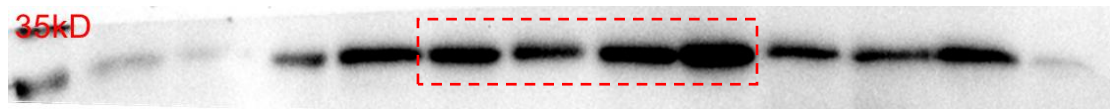


Sample 3+Sample 4 β -Tubulin-Hippo

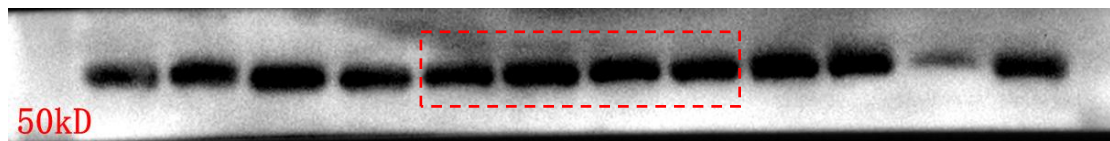


Supplementary Figure 4b. Lanes within the red dotted boxes, arranged left to right: BV2 cells transfected with scramble, ShRNA-Tmem9, negative control (NC) and OE-Tmem9 lentivirus.

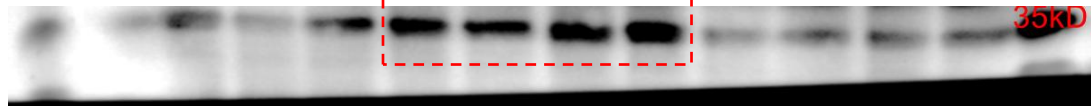
Sample 1. Tmem9



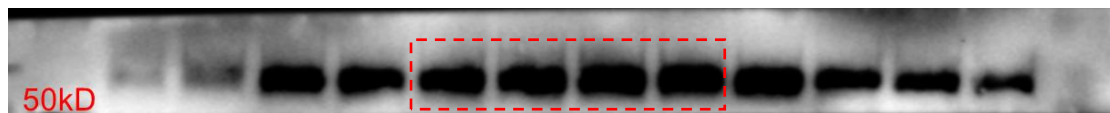
Sample 1. β -Tubulin



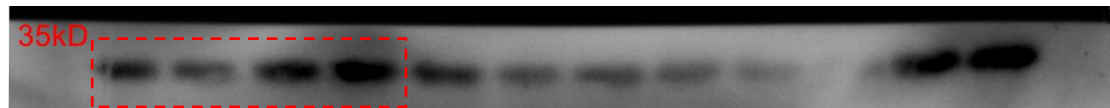
Sample 2. Tmem9



Sample 2. β -Tubulin



Sample 3. Tmem9



Sample 3. β -Tubulin



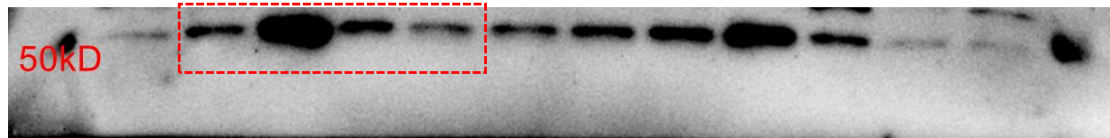
Supplementary figure 5.

Lanes within the red dotted boxes, arranged left to right: Scramble, shRNA-Tmem9, Negative Control (NC), and Overexpression (OE)-Tmem9.

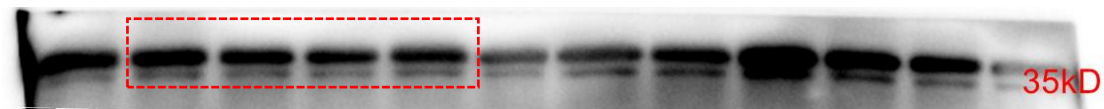
b. Atg5, P62, Lc3II/Lc3I

Atg5

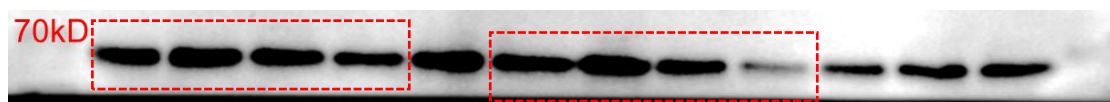
Sample -1 Atg5



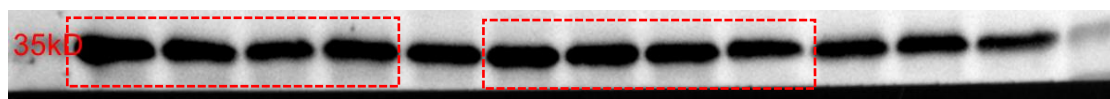
Sample -1 Gapdh



Sample -2+Sample 3 Atg5

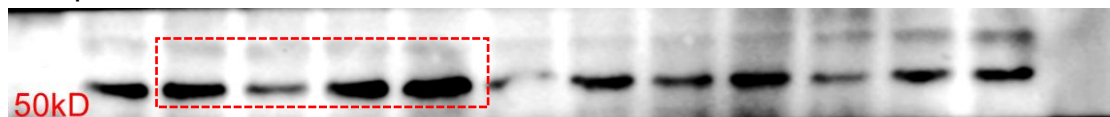


Sample -2+Sample 3 Gapdh

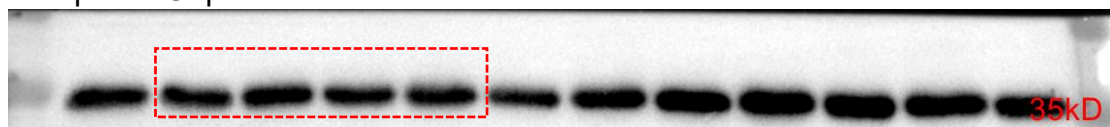


P62

Sample-1. P62



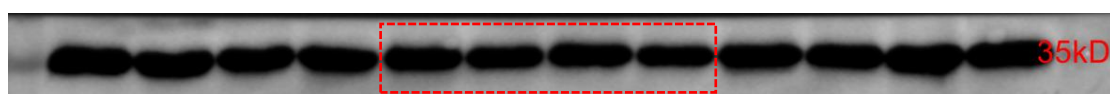
Sample-1. Gapdh



Sample-2. P62



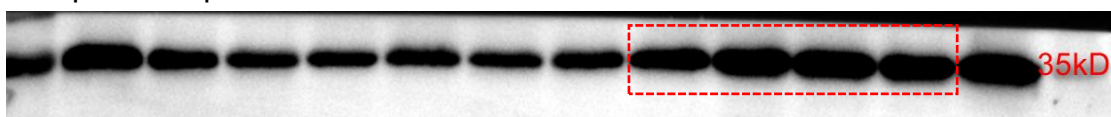
Sample-2. Gapdh



Sample-3. P62

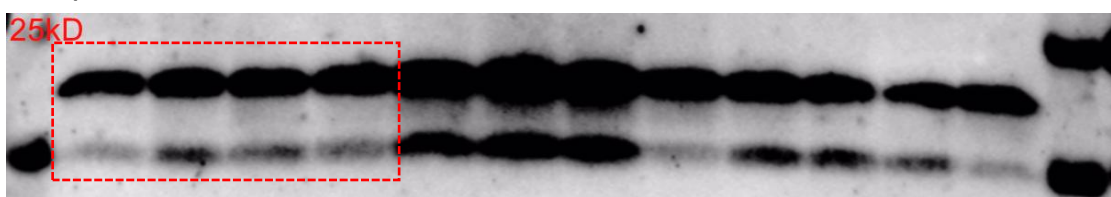


Sample-3. Gapdh

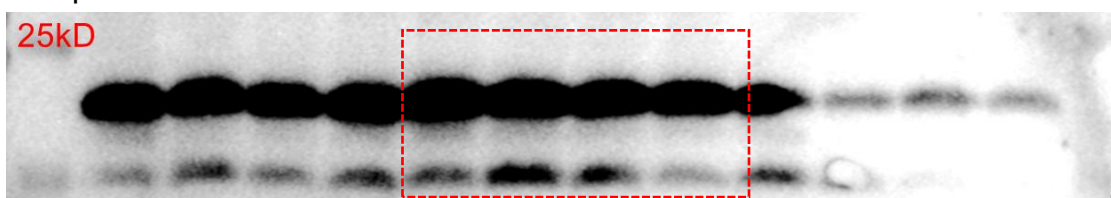


Lc3II/Lc3I

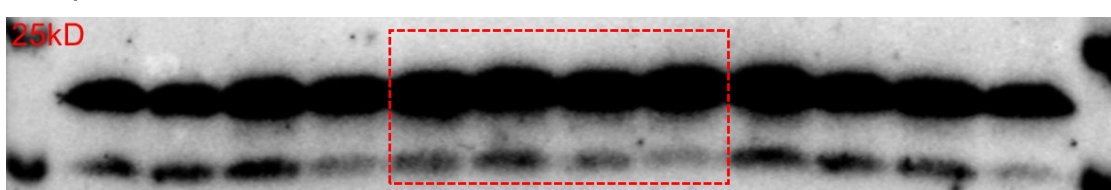
Sample 1. Lc3



Sample 2. Lc3



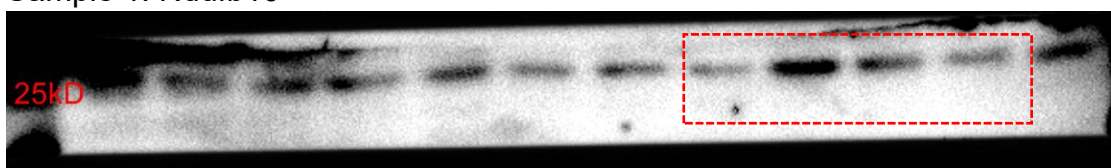
Sample 3. Lc3



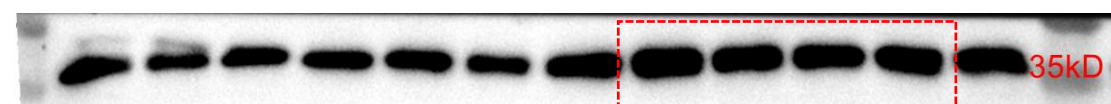
e. Ndufb10, Sdhb, Uqcrc2, Mtco2, Atpaf1

Ndufb10

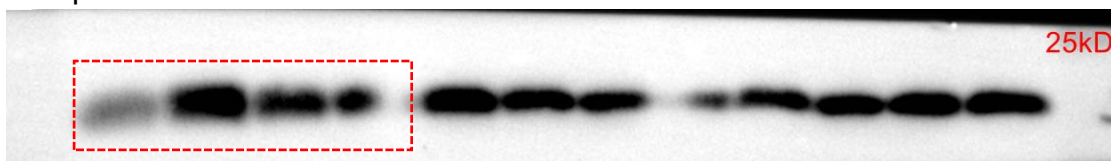
Sample 1. Ndufb10



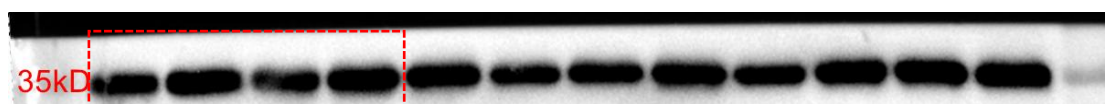
Sample 1. Gapdh



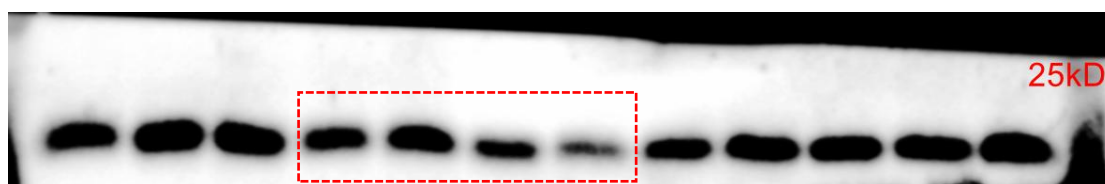
Sample 2. Ndufb10



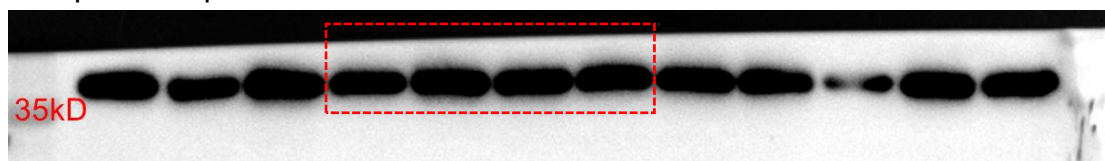
Sample 2. Gapdh



Sample 3. Ndufb10

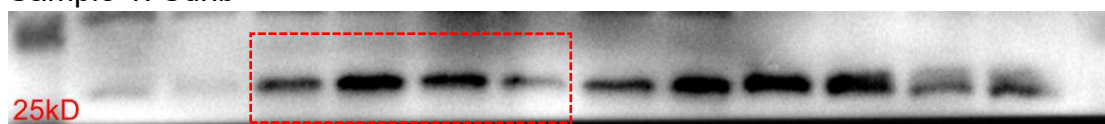


Sample 3. Gapdh

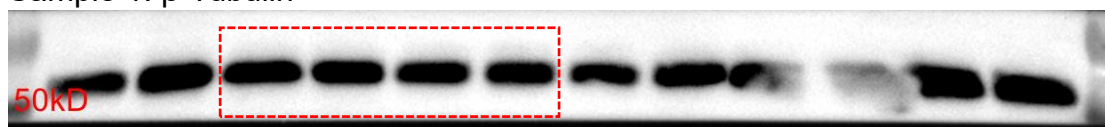


Shdb

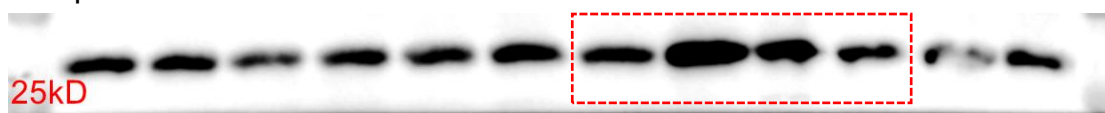
Sample 1. Sdhb



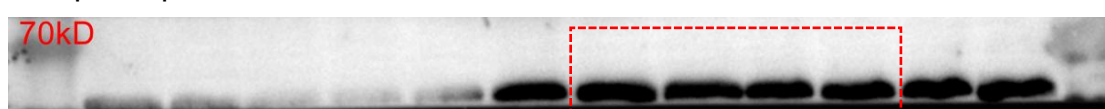
Sample 1. β -Tubulin



Sample 2. Sdhb



Sample 2. β -Tubulin



Sample 3. Sdhb



Sample 3. β -Tubulin

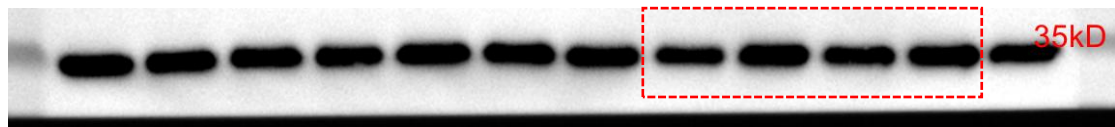


Uqcrc2

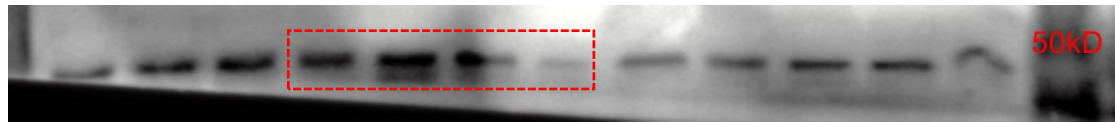
Sample 1. Uqcrc2



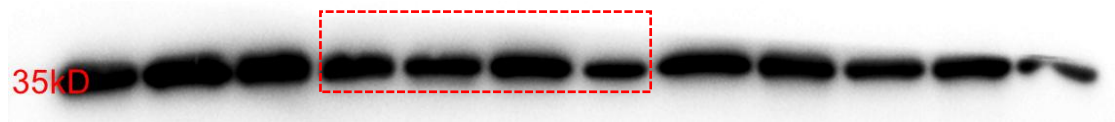
Sample 1. Gapdh



Sample 2. Uqcrc2



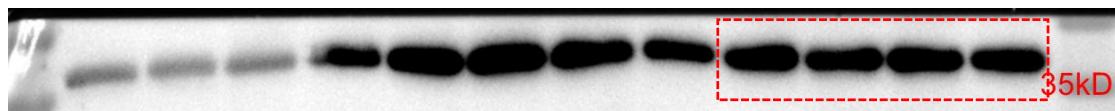
Sample 2. Gapdh



Sample 3. Uqcrc2

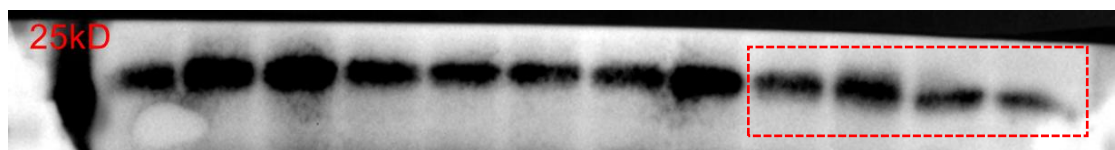


Sample 3. Gapdh



MtCO2

Sample 1. MtCO2



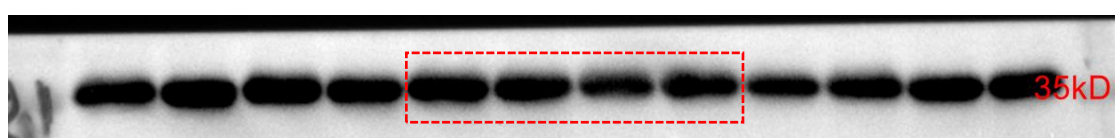
Sample 1. Gapdh



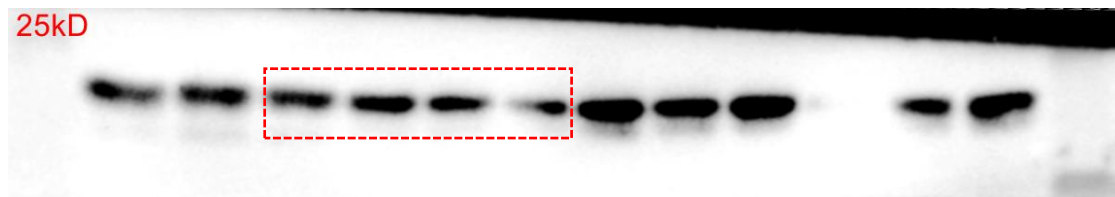
Sample 2. MtCO2



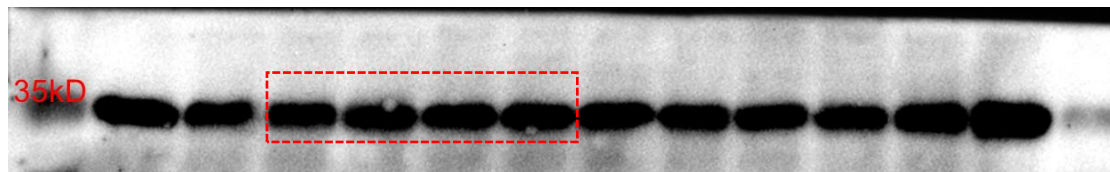
Sample 2. Gapdh



Sample 3. MtCO2

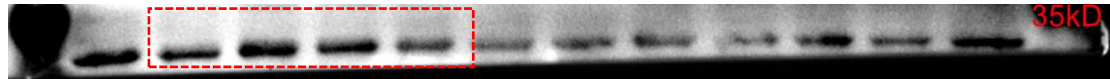


Sample 3. Gapdh



Atpaf1

Sample 1. Atpaf1



Sample 1. Tubulin



Sample 2. Atpaf1



Sample 2. β -Tubulin



Sample 3. Atpaf1



Sample 3. β -Tubulin



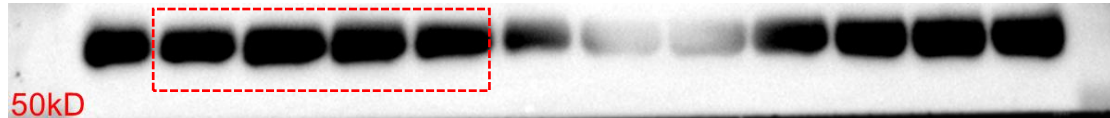
h. Nlrp3, Inos, Cleaved IL-1 β , IL-10

Nlrp3

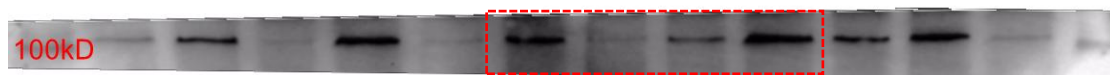
Sample 1. Nlrp3



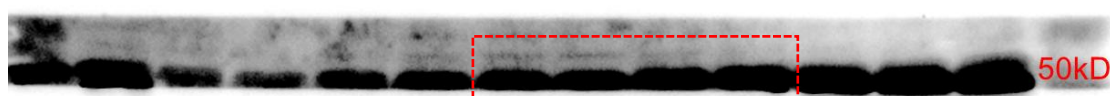
Sample 1. β -Tubulin



Sample 2. Nlrp3



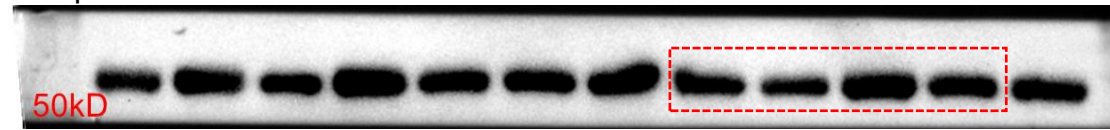
Sample 2. β -Tubulin



Sample 3. Nlrp3

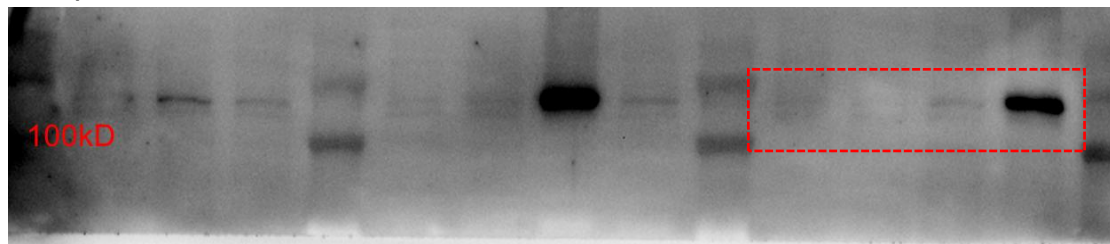


Sample 3. Tubulin

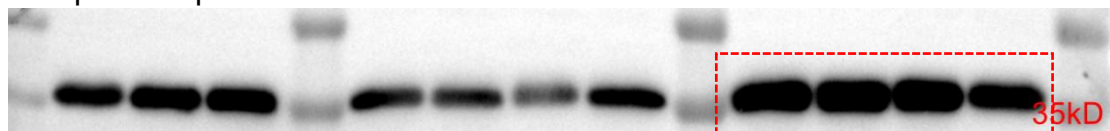


Inos

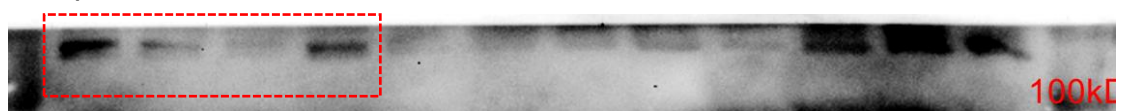
Sample 1. Inos



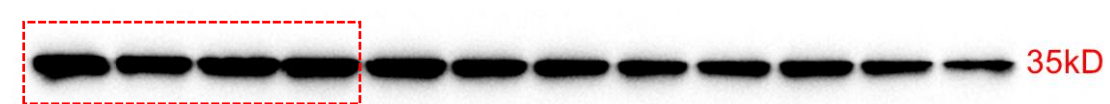
Sample 1. Gapdh



Sample 2. Inos



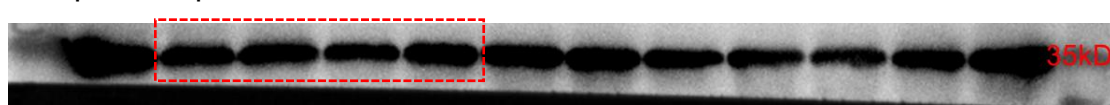
Sample 2. Gapdh



Sample 3. Inos



Sample 3. Gapdh

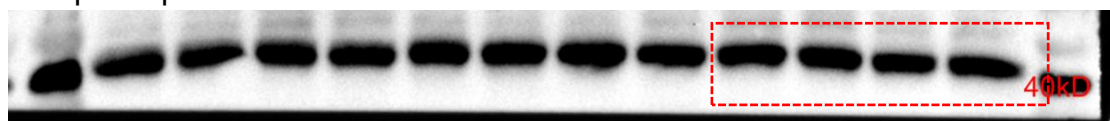


Cleaved IL-1 β

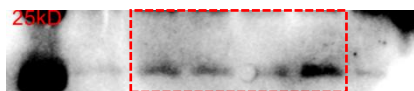
Sample 1. Cleaved IL-1 β



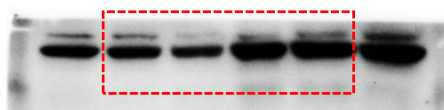
Sample 1. β -actin



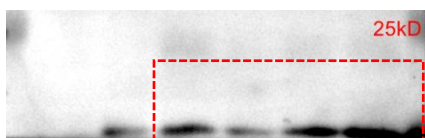
Sample 2. Cleaved IL-1 β



Sample 2. β -actin



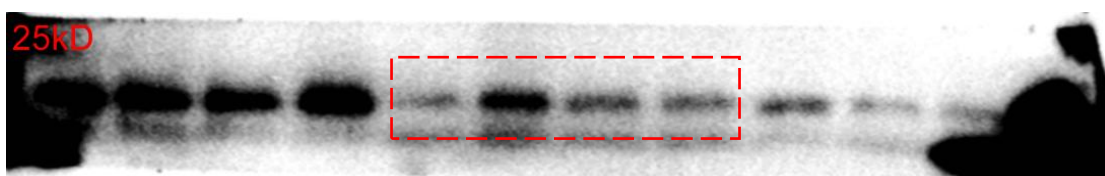
Sample 3. cleaved Il-1 β



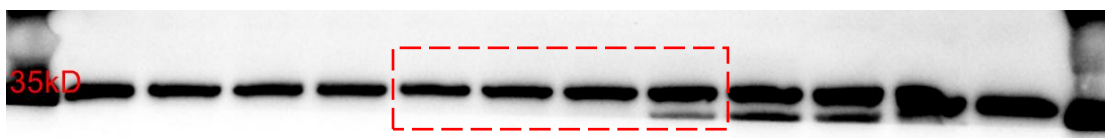
Sample 3. β -actin



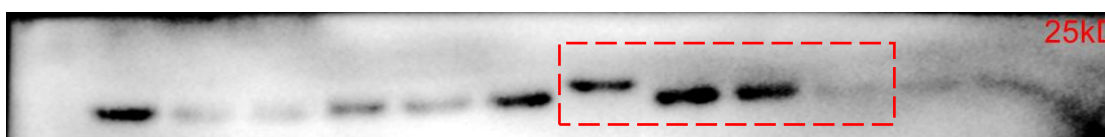
Il-10
Sample 1. Il-10



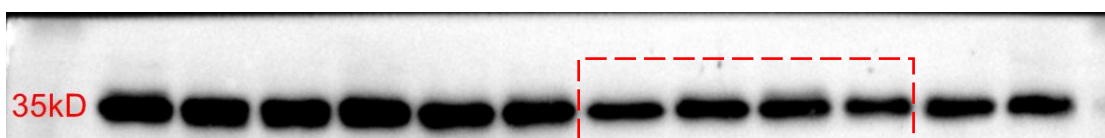
Sample 1. Gapdh



Sample 2. Il-10



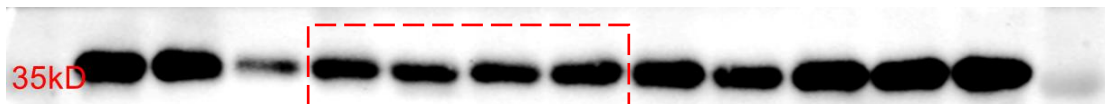
Sample 2. Gapdh



Sample 3. Il-10



Sample 3. Gapdh



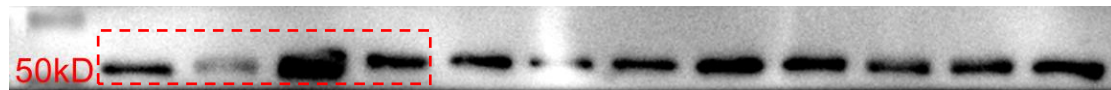
Supplementary figure 6.

Lanes within the red dotted boxes, arranged left to right: Scramble + DMSO (Scramble-DMSO), Scramble+Chloroquine (Scramble-CQ), ShRNA-Tmem9+ DMSO(ShRNA-DMSO), ShRNA-Tmem9+Chloroquine (ShRNA-CQ).

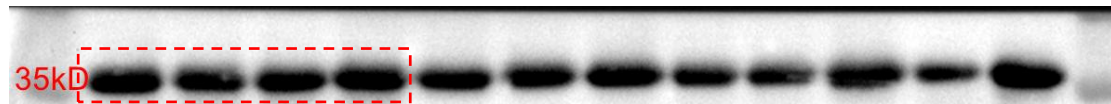
Supplementary figure 6b: Atg5, P62, Lc3II/Lc3I.

Atg5

Sample 1 Atg5



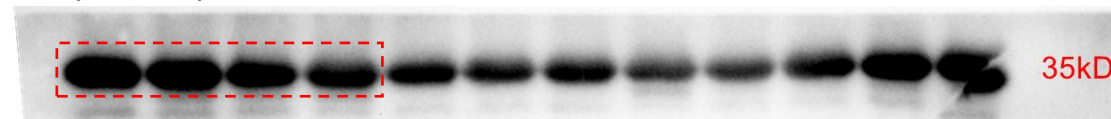
Sample 1 Gapdh



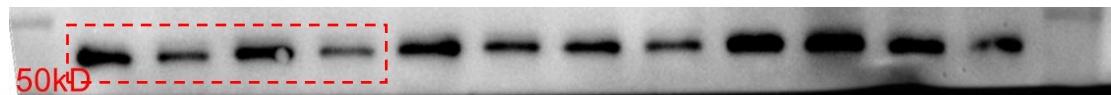
Sample 2 Atg5



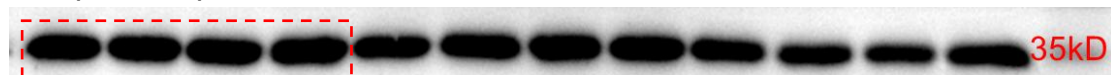
Sample 2 Gapdh



Sample 3 Atg5



Sample 3 Gapdh



P62

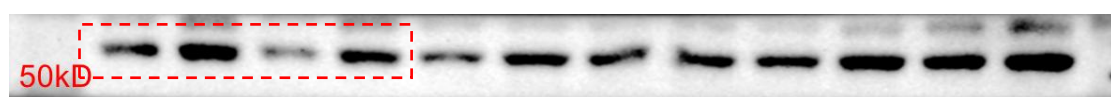
Sample 1 P62



Sample 1 Gapdh



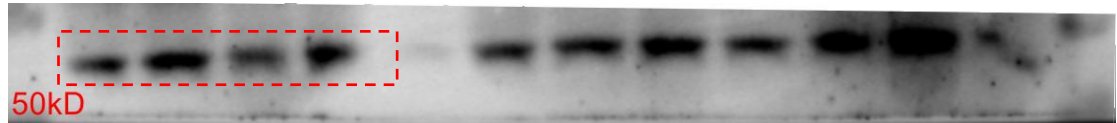
Sample 2 P62



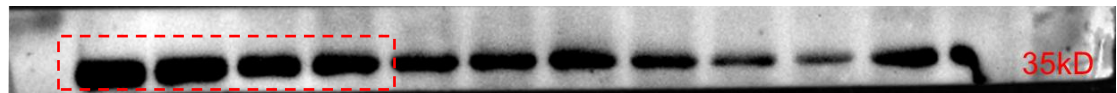
Sample 2 Gapdh



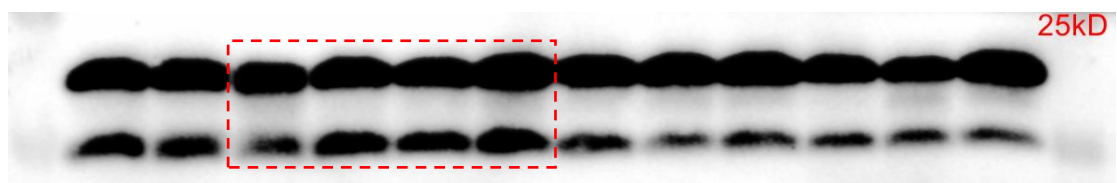
Sample 3 P62



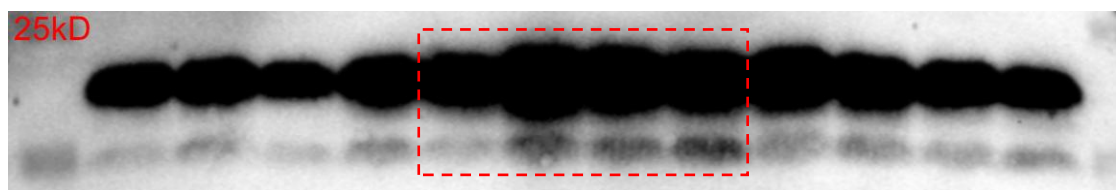
Sample 3 Gapdh



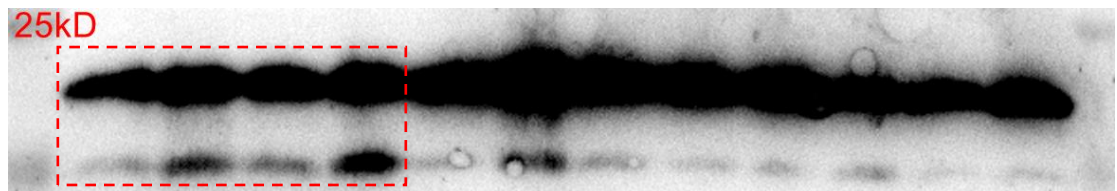
Sample 1 Lc3II/LC3I



Sample 2 Lc3II/LC3I



Sample 3 Lc3II/LC3I



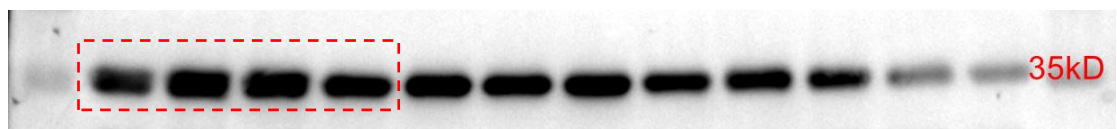
Supplementary figure 6e: Uqcrc2, Sdhb, Atpaf1, Ndufb10, Mtco2

Uqcrc2

Sample 1 Uqcrc2



Sample 1 Gapdh



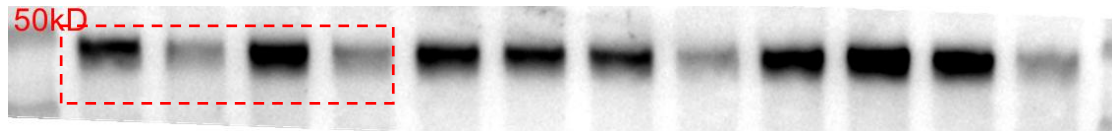
Sample 2 Uqcrc2



Sample 2 Gapdh



Sample 3 Uqcrc2

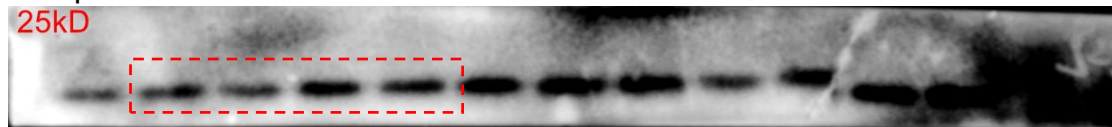


Sample 3 Gapdh

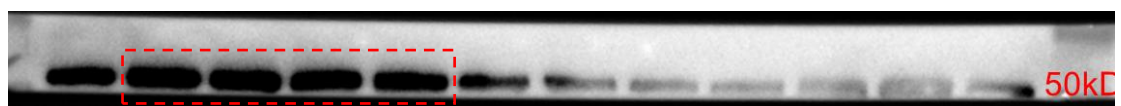


Ndufb10

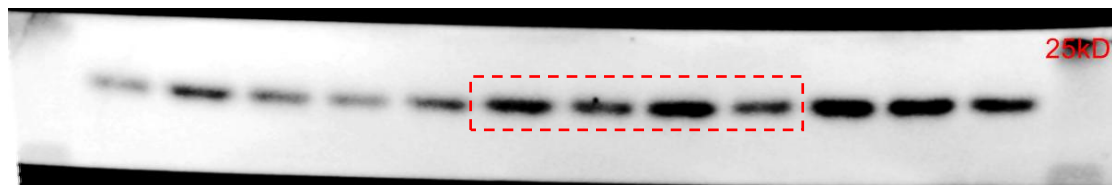
Sample 1 Ndufb10



Sample 1 β -Tubulin



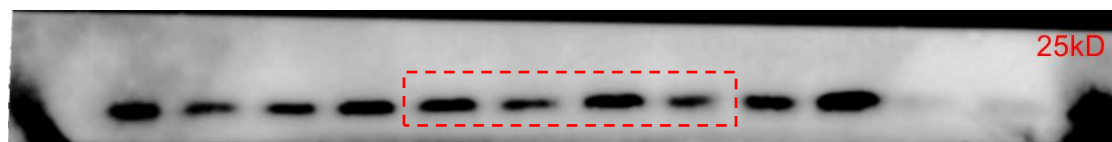
Sample 2 Ndufb10



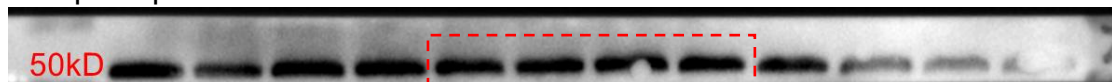
Sample 2 β -Tubulin



Sample 3 Ndufb10

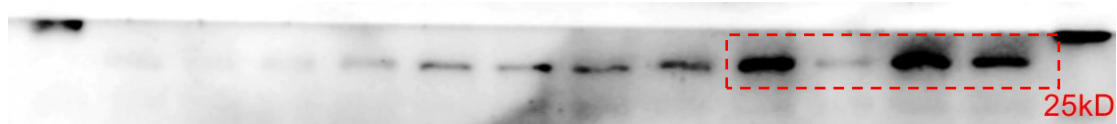


Sample 3 β -Tubulin



Sdhb

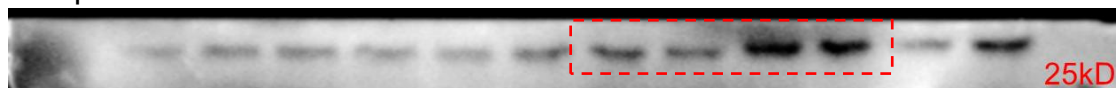
Sample 1 Sdhb



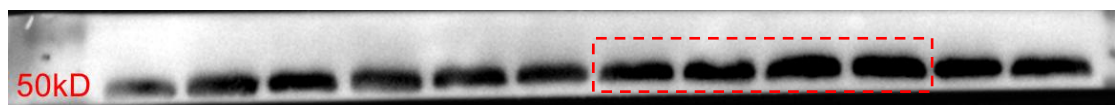
Sample 1 β-Tubulin



Sample 2 Sdhb



Sample 2 β-Tubulin



Sample 3 Sdhb

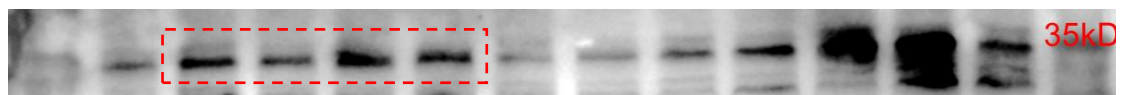


Sample 3 β-Tubulin



Atpaf1

Sample 1 Atpaf1



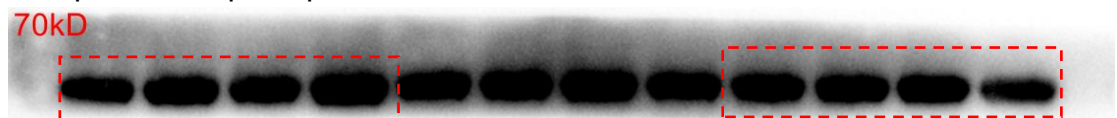
Sample 1 β-Tubulin



Sample 2+Sample 3 Atpaf1



Sample 2+Sample 3 β-Tubulin

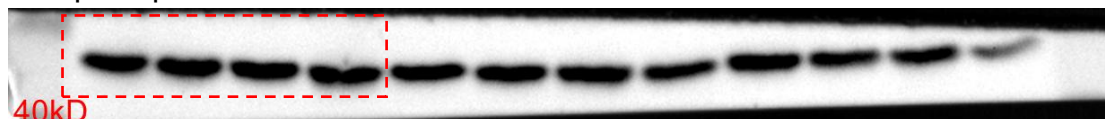


Mtco2

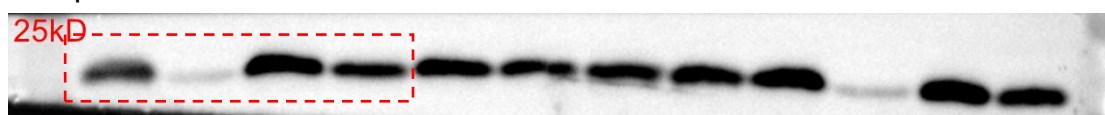
Sample 1 **Mtco2**



Sample 1 β -actin



Sample 2 Mtco2



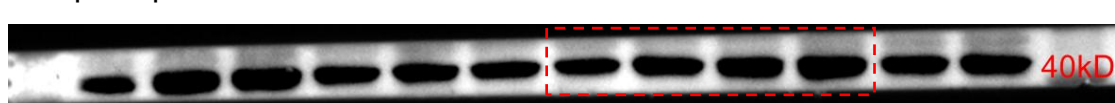
Sample 2 β -actin



Sample 3 Mtco2



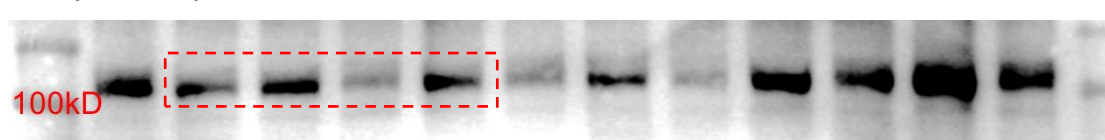
Sample 3 β -actin



Supplementary figure 6g: Nlrp3, Cleaved Il-1 β , Il-10

Nlrp3

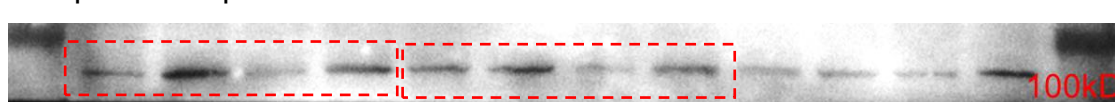
Sample 1 Nlrp3



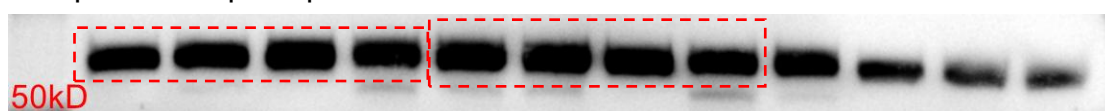
Sample 1 β -Tubulin



Sample 2+sample 3 NLRP3

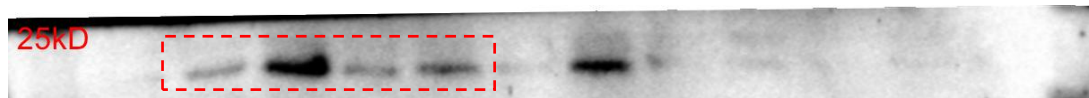


Sample 2+Sample 3 β -Tubulin

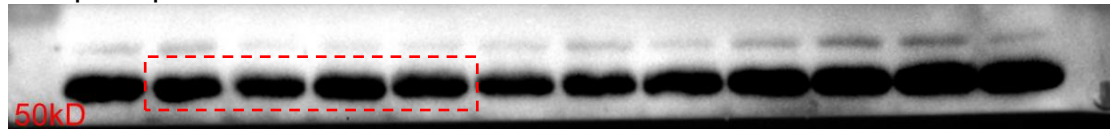


Cleaved II-1 β

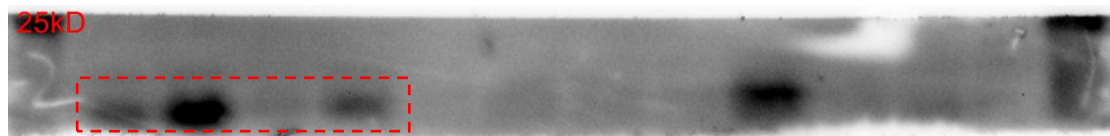
Sample 1 Cleaved II-1 β



Sample 1 β -Tubulin



Sample 2 Cleaved II-1 β



Sample 2 β -Tubulin



Sample 3 Cleaved II-1 β

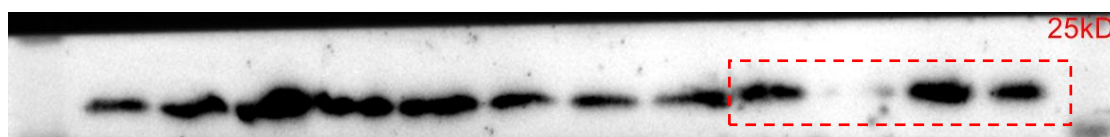


Sample 3 β -Tubulin

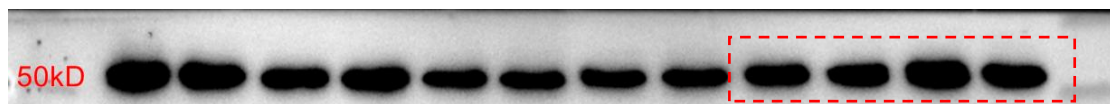


II-10

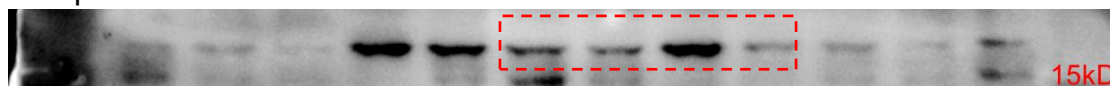
Sample 1 II-10



Sample 1 β -Tubulin



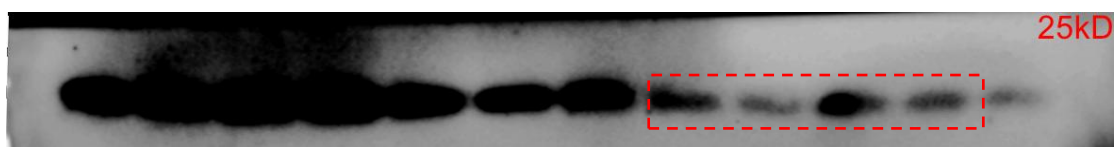
Sample 2 II-10



Sample 2 β -Tubulin



Sample 3 II-10



Sample 3 β -Tubulin



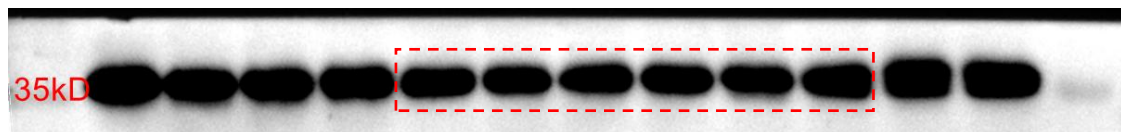
Supplementary figure 7c.

Lanes within the red dotted boxes, arranged left to right: Sample 1 (Scramble, ShRNA-Tmem9), Sample 2 (Scramble, ShRNA-Tmem9), Sample 3 (Scramble, ShRNA-Tmem9).

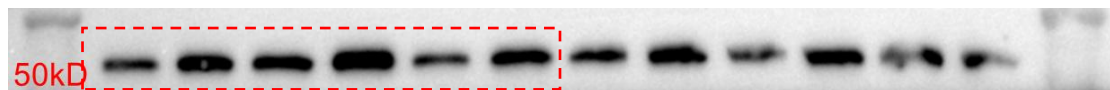
Total Lkb1, Sample 1-3



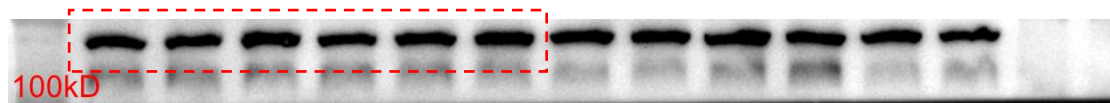
Gapdh, Sample 1-3



Lysosomal Lkb1, Sample 1-3



Lysosomal Lamp1, Sample 1-3



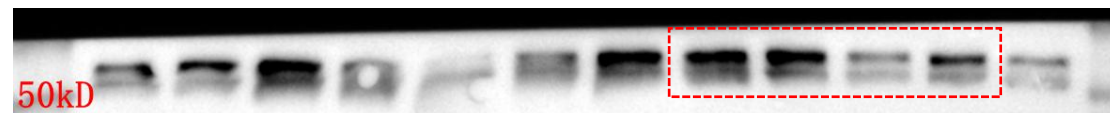
Supplementary figure 8.

Lanes within the red dotted boxes, arranged left to right: Negative Control + DMSO (NC-DMSO), Negative Control + Concanavalin A (NC-Con A), OE Tmem9 + DMSO (OE-DMSO), OE Tmem9 + Concanavalin A (OE-Con A).

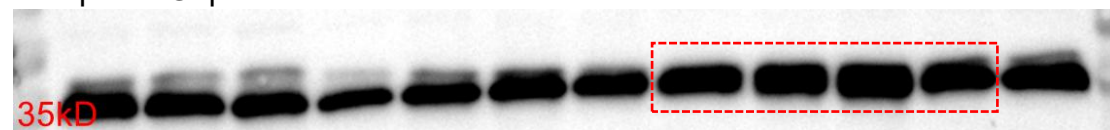
a. Lkb1, Ampka/p-Ampka, Nlrp3, Cpt1a

Lkb1

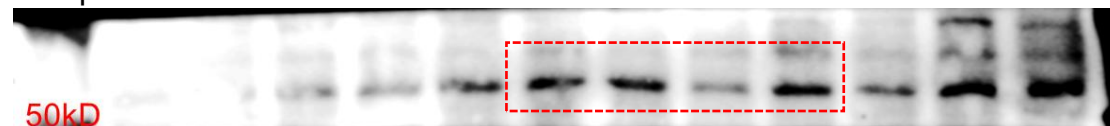
Sample 1. Lkb1



Sample 1. Gapdh



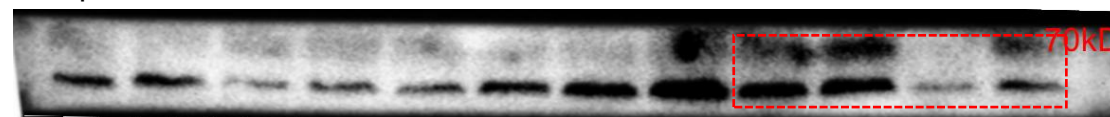
Sample 2. Lkb1



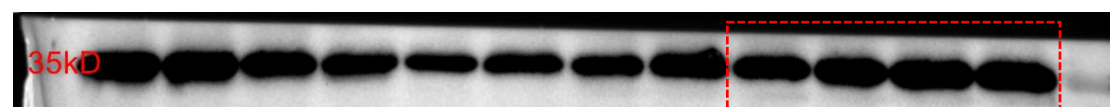
Sample 2. Gapdh



Sample 3. Lkb1

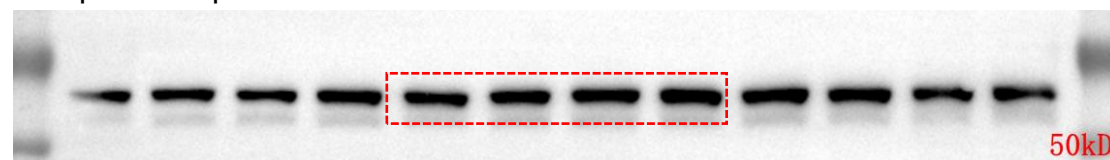


Sample 3. Gapdh

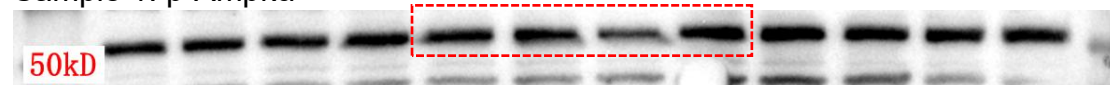


Ampka/p-Ampka

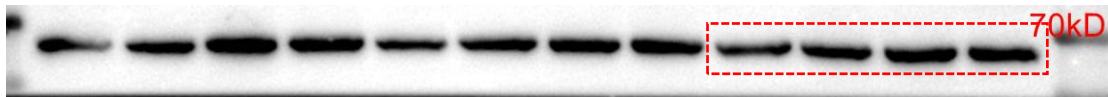
Sample 1. Ampka



Sample 1. p-Ampka



Sample 2 Ampka



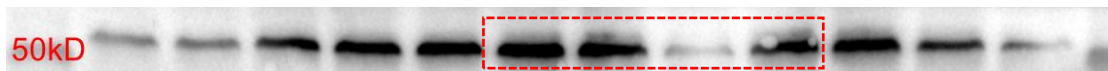
Sample 2. p-Ampkα



Sample 3. Ampkα

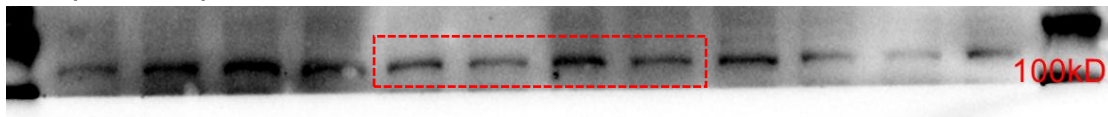


Sample 3. p-Ampkα



Nlrp3

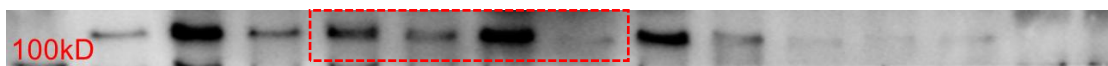
Sample 1. Nlrp3



Sample 1. β actin



Sample 2. Nlrp3



Sample 2. β actin



Sample 3. Nlrp3

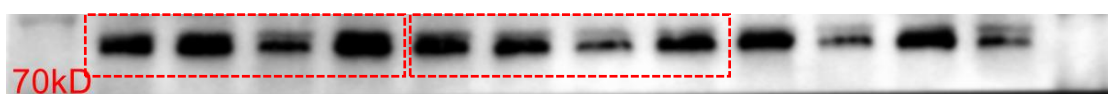


Sample 3. β actin

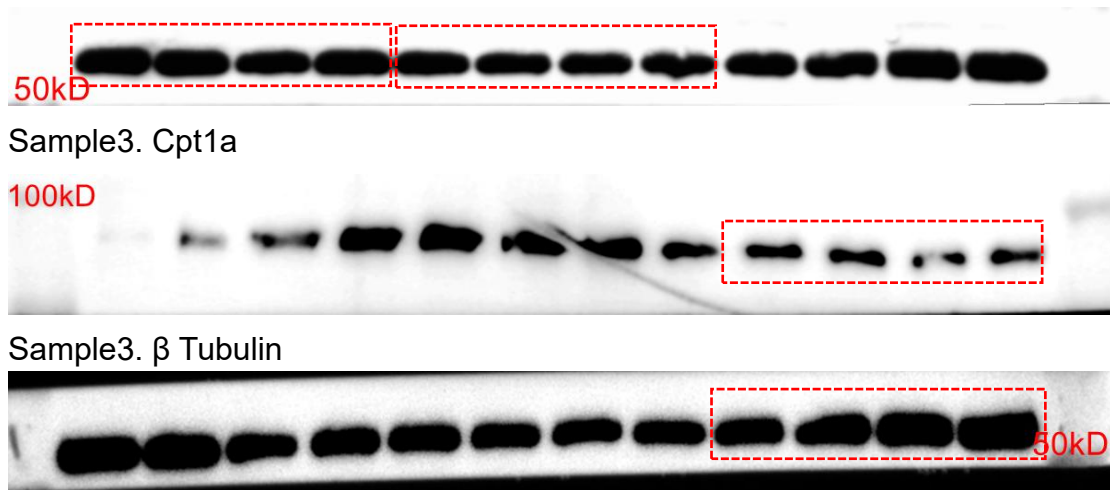


Cpt1a

Sample 1+Sample 2. Cpt1a



Sample 1+Sample 2. β Tubulin



Supplementary figure 8b. Sdhb, Mtco2, Atpaf1, Il-10

Sdhb

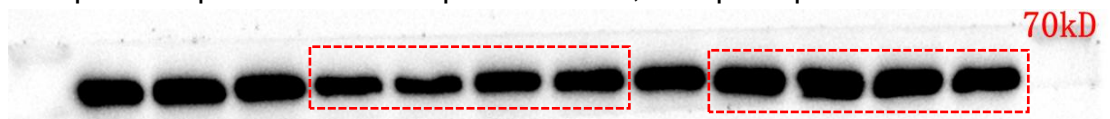
Sample 1+Sample 2. Sdhb



Sample 1 Mtco2



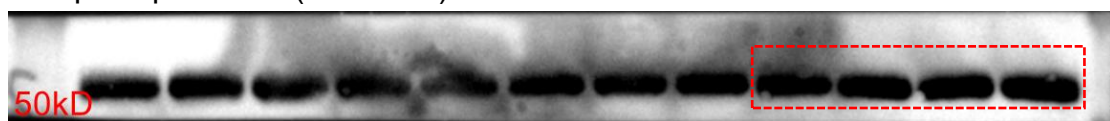
Sample 1 + 2 β-Tubulin or Sample 1 + 2 Sdhb; Sample 1 β-Tubulin for Mtco2



Sample 2 Mtco2



Sample 2 β-Tubulin (for Mtco2)



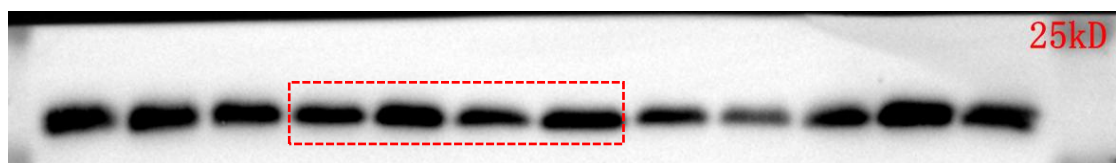
Sample 3 Sdhb



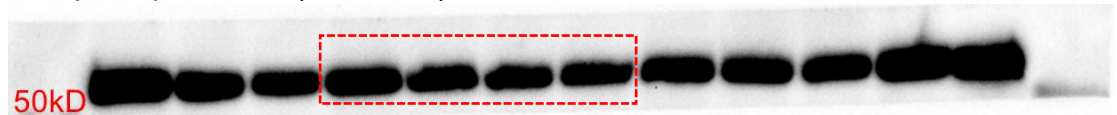
Sample 3 β-Tubulin (for Sdhb)



Sample 3 Mtco2

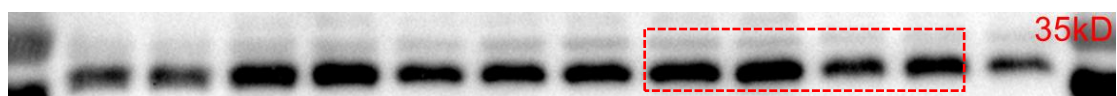


Sample 3 β-Tubulin (for Mtco2)



Atpaf1

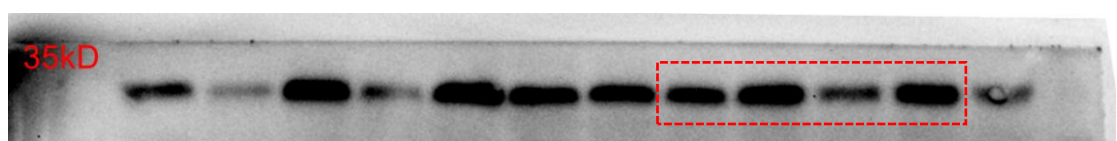
Sample 1. Atpaf1



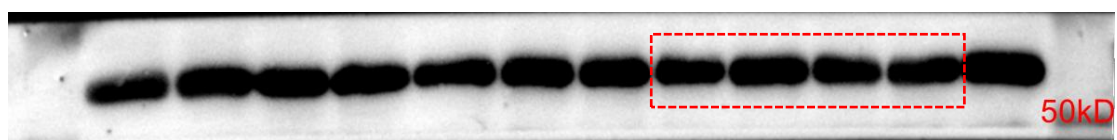
Sample 1. β-Tubulin



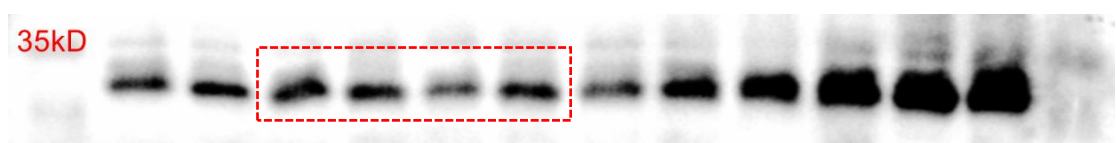
Sample 2. Atpaf1



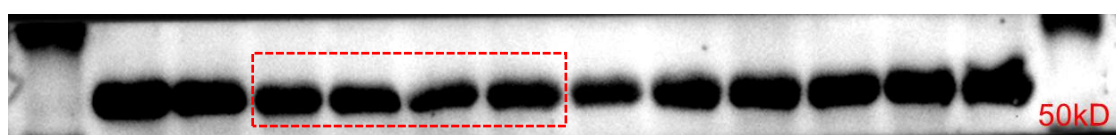
Sample 2. β-Tubulin



Sample 3. Atpaf1

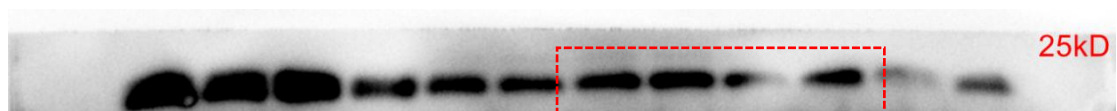


Sample 3. β-Tubulin

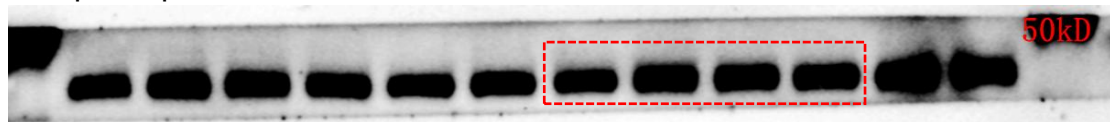


Il-10

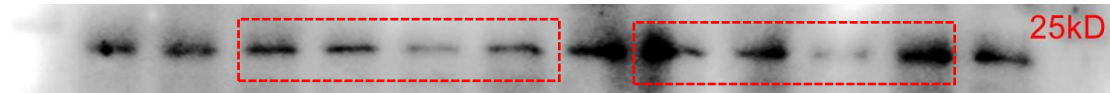
Sample 1. Il-10



Sample 1. β -actin



Sample 2+Sample 3. Il-10

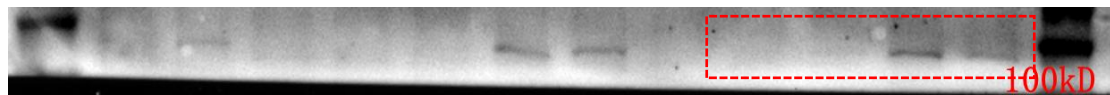


Sample 2+Sample 3. β -actin

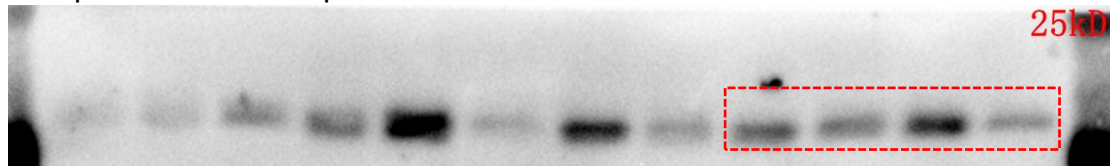


e. Inos+Cleaved Il-1 β

Sample 1 Inos



Sample 1 Cleaved Il-1 β



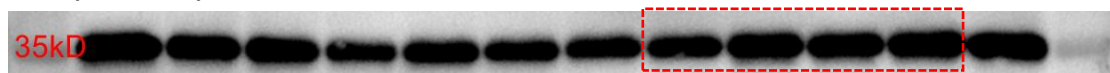
Sample 1 Gapdh



Sample 2 Inos



Sample 2 Gapdh



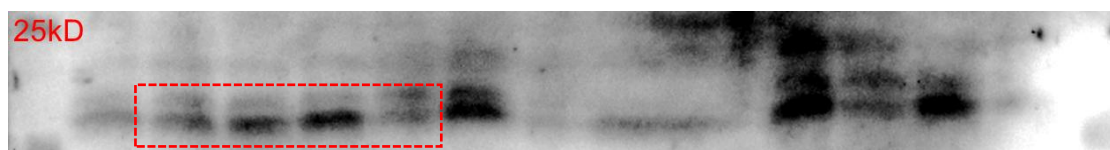
Sample 3 Inos



Sample 3 Gapdh



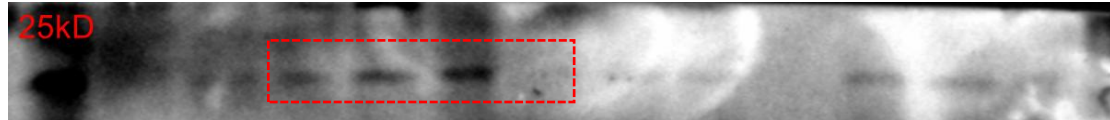
Sample 2 Cleaved Il-1 β



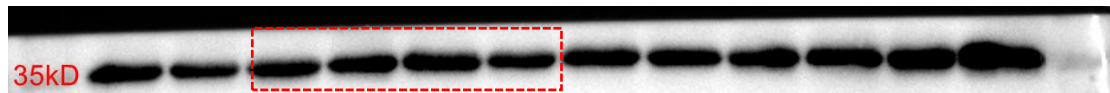
Sample 2 Gapdh



Sample 3 Cleaved Il-1 β



Sample 3 Gapdh



Caspase-1/Cleaved Caspase-1

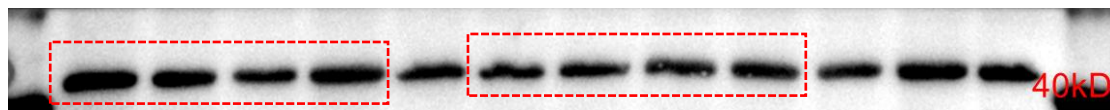
Sample 1. Pro Caspase-1



Sample 1. Cleaved Caspase-1



Sample 2+Sample 3. Pro Caspase-1



Sample 2+Sample 3. Cleaved Caspase-1

