

Supplementary Table 1 Compositions and Ingredient of High-fat diet

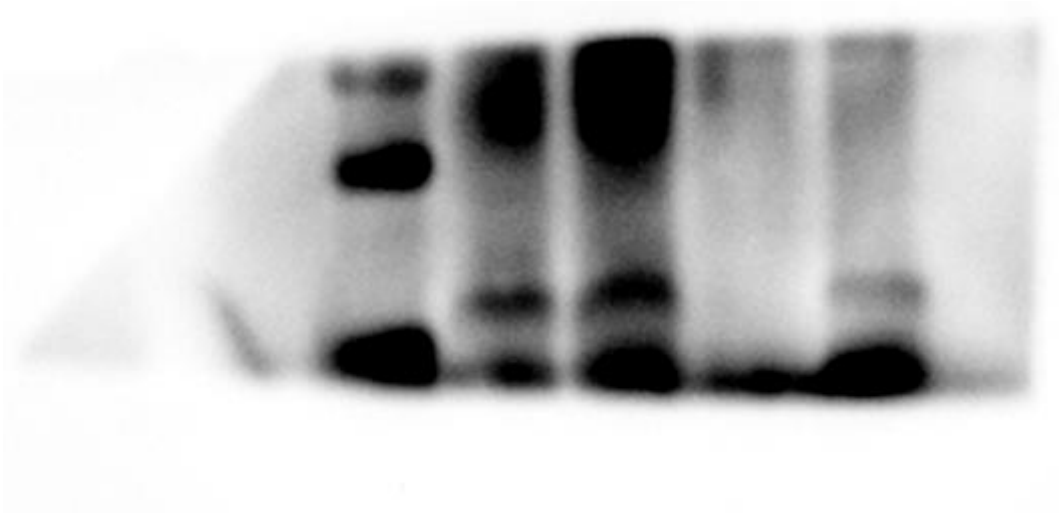
Ingredient	gm	kcal
Casein, 80 Mesh	200	800
L-Cystine	3	12
Corn Starch	72.8	291
Maltodextrin	100	400
Sucrose	172.8	691
Cellulose, BW200	50	0
Soybean Oil	25	225
Lard	177.5	1598
Mineral Mix S10026	10	0
DiCalcium Phosphate	13	0
Calcium Carbonate	5.5	0
Potassium Citrate, 1 H ₂ O	16.5	0
Vitamin Mix V10001	10	40
Choline Bitartrate	2	0
FD&C Red Dye #40	0.05	0
Total	858.15	4057

Supplementary Table 2. The details of the antibodies

Antibodies name	Company& Catalog number	RRID	dilution	incubation time
Claudin 1	ABclonal Cat# A25902	AB_1664011	1:1000	10 min
Occludin	ABclonal Cat# A24601	AB_2156311	1:1000	10 min
ZO-1	ABclonal Cat# AC026	AB_2533456	1:2000	10 min
β -Actin	ABclonal Cat# A28492	AB_2833667	1: 80000	10 min
PI3K	ABclonal Cat# A22730	AB_11152610	1:2500	10 min
Akt	ABclonal Cat# AA2696	AB_2315666	1:1000	10 min
p-Akt	ABclonal Cat# AP1208	AB_2782958	1:1000	10 min
NF-kB	ABclonal Cat# A11204	AB_1619797	1:2000	10 min
p-NF-kB	ABclonal Cat# AP1294	AB_2809165	1:3000	10 min
MyD88	ABclonal Cat# A19082	AB_2235536	1:1000	10 min
TLR4	ABclonal Cat# A11226	AB_10638446	1:1000	10 min
stat1	Proteintech Cat#10144-2-AP	AB_2286875	1:2000	10 min
p-stat1	Proteintech Cat#82674-10-RR	AB_3085362	1:2000	10 min
stat3	Proteintech Cat# 10253-2-AP	AB_2302876	1:2000	10 min
p-stat3	Proteintech Cat# 80199-2-RR	AB_3670470	1:1000	10 min
CIITA	Proteintech Cat# 55099-1-AP	AB_2881268	1:1000	10 min
MHC II	ABclonal Cat# A25794	AB_2918416	1:1000	10 min

Claudin 1

CON CON-ZEA HFD HFD-ZEA



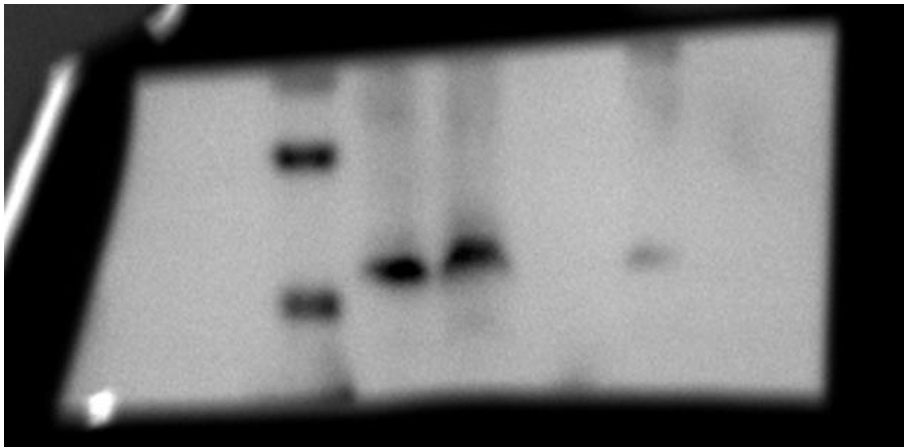
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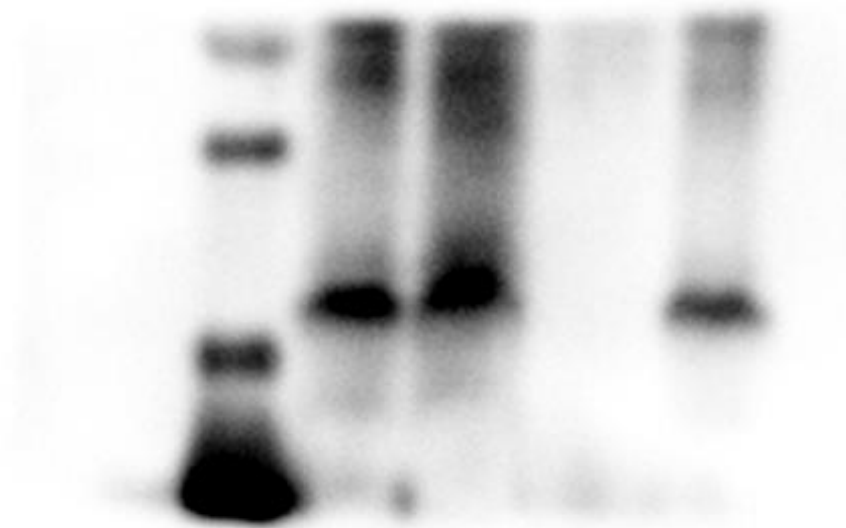
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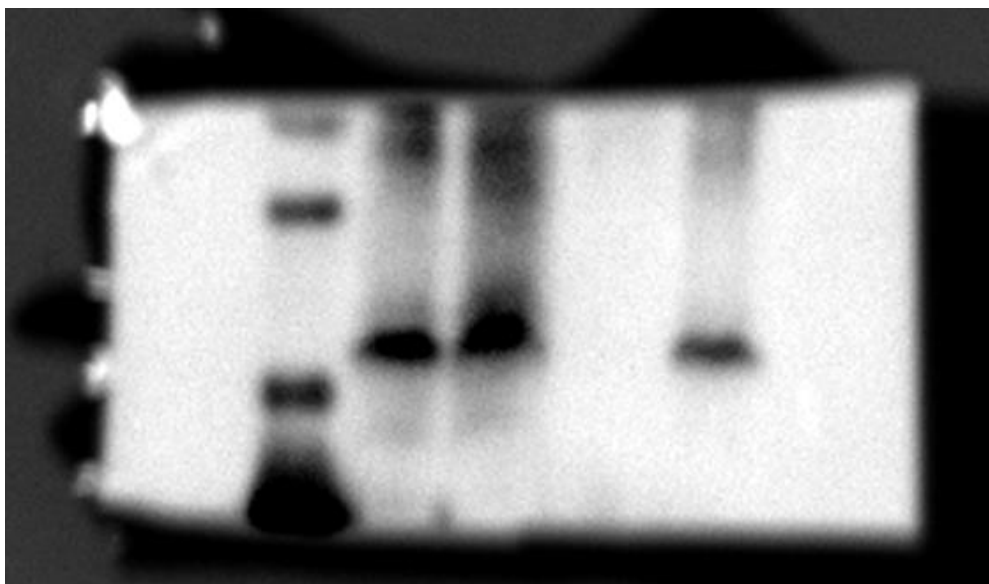
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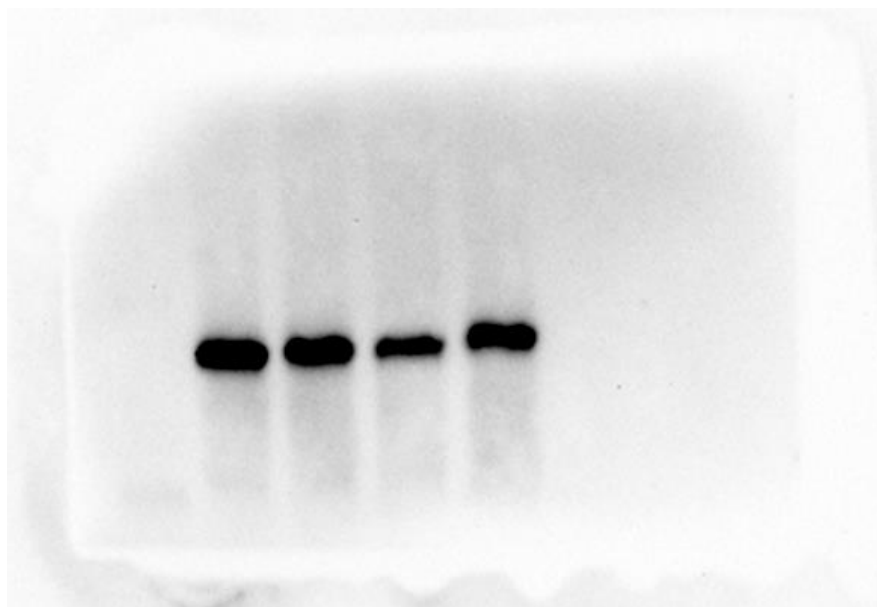
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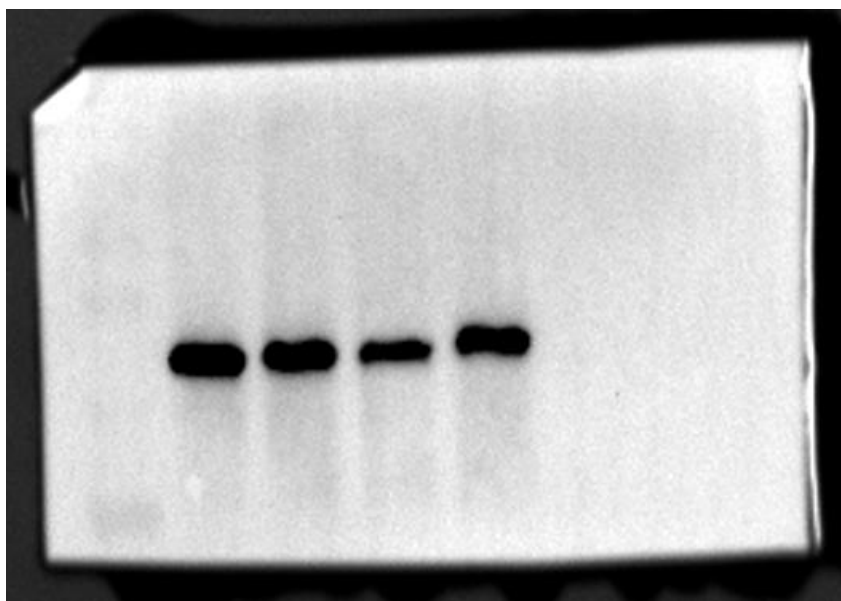
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Occludin

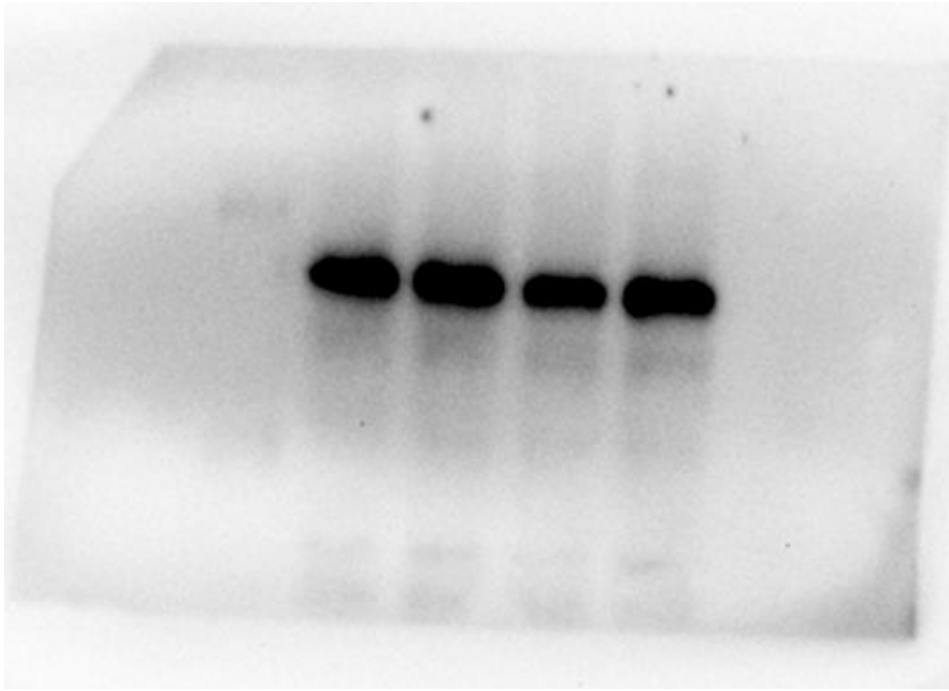
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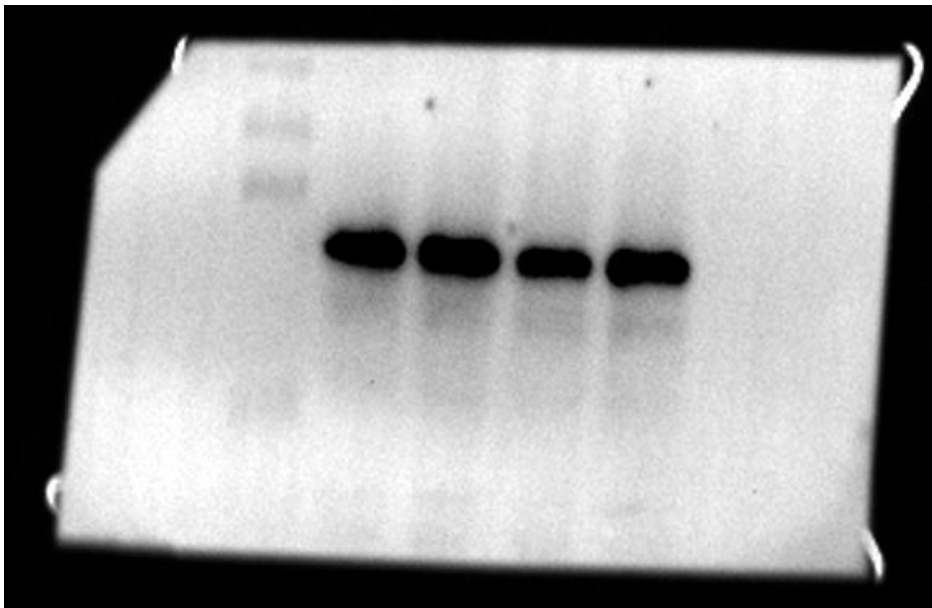
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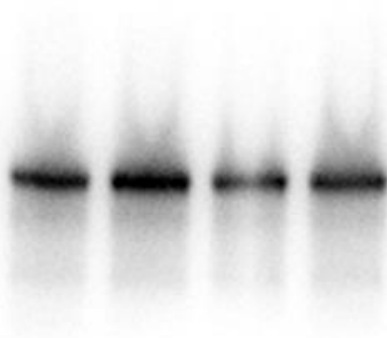
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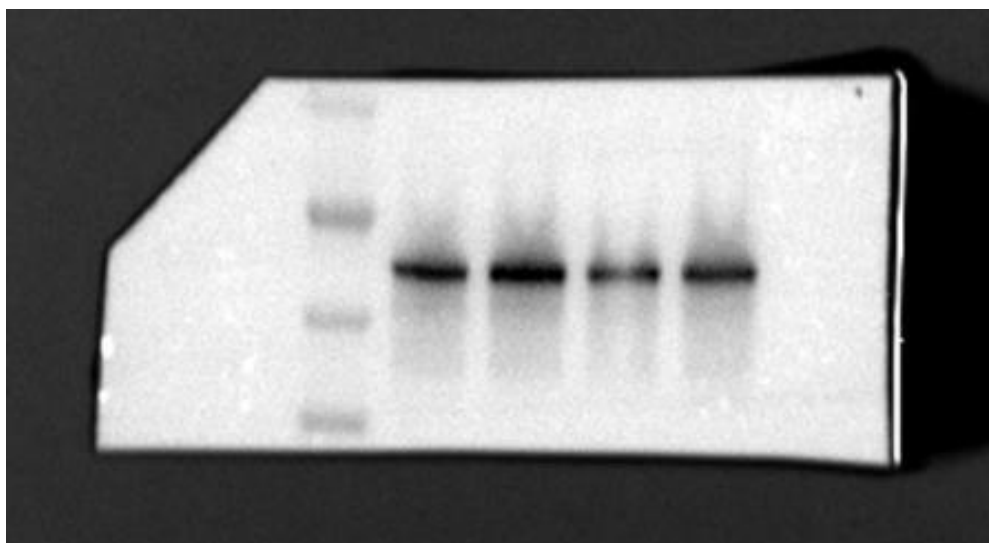
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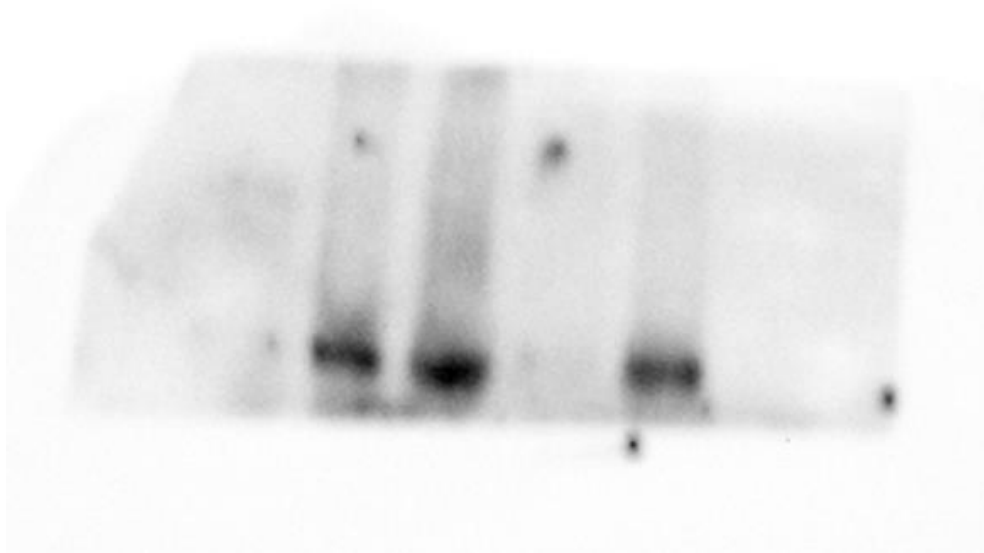
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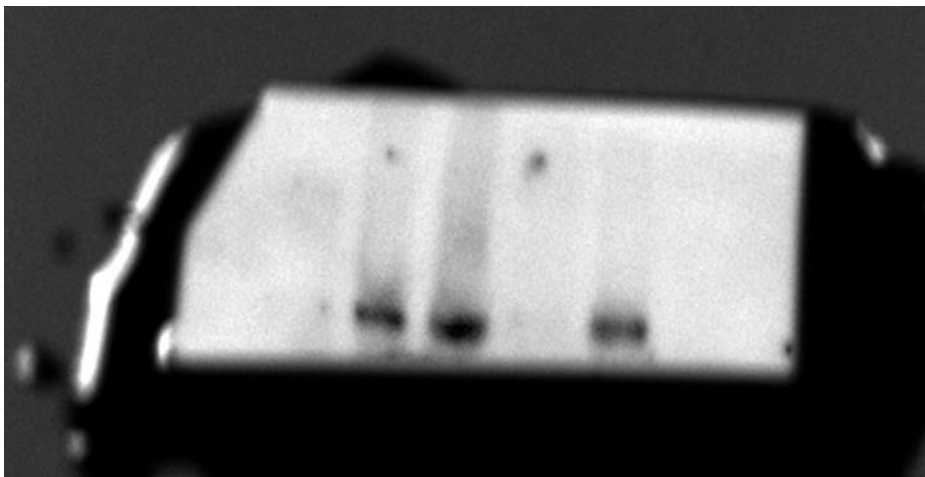
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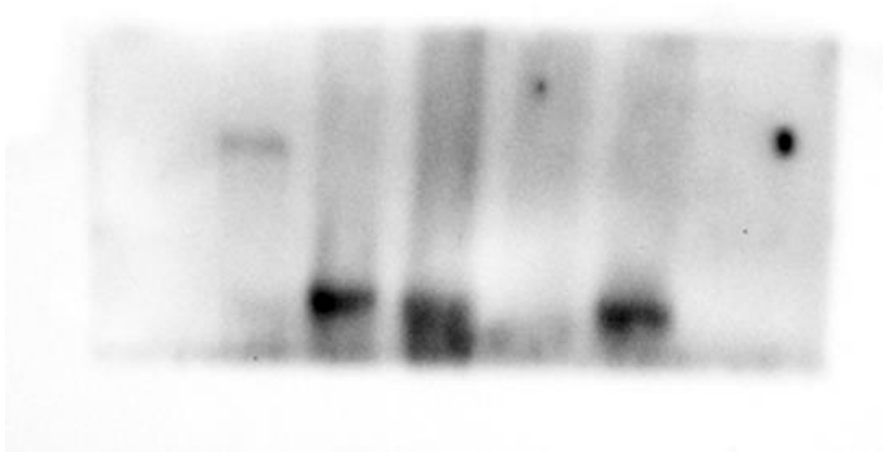
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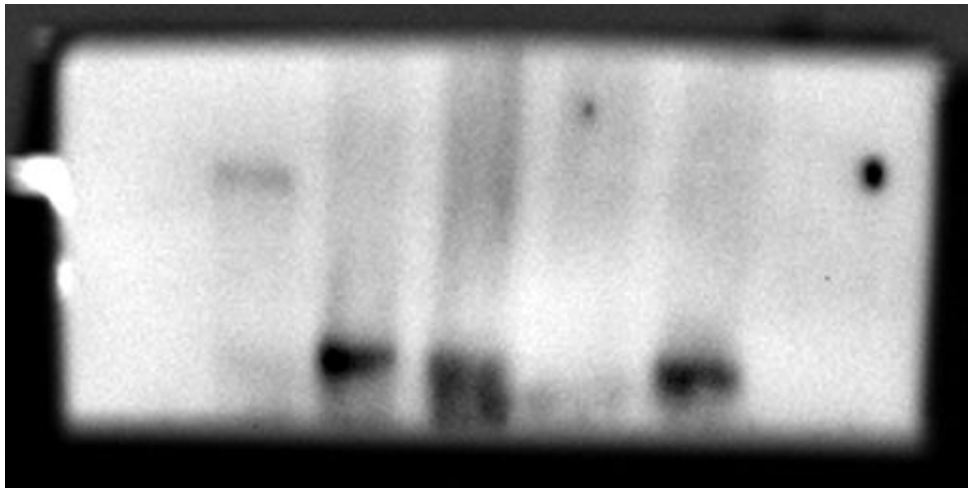
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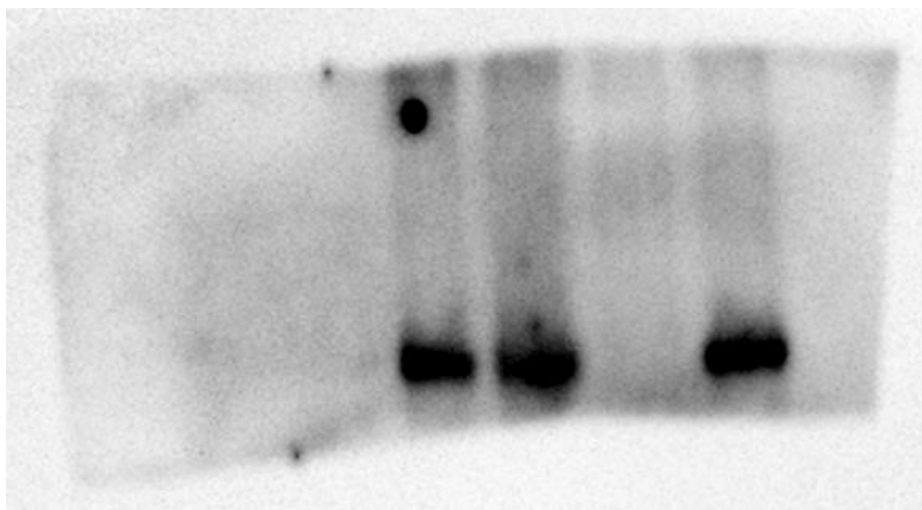
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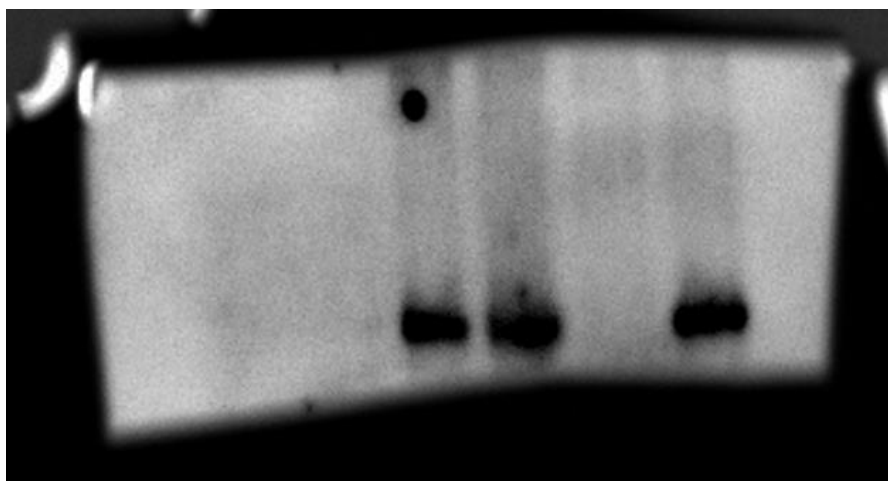
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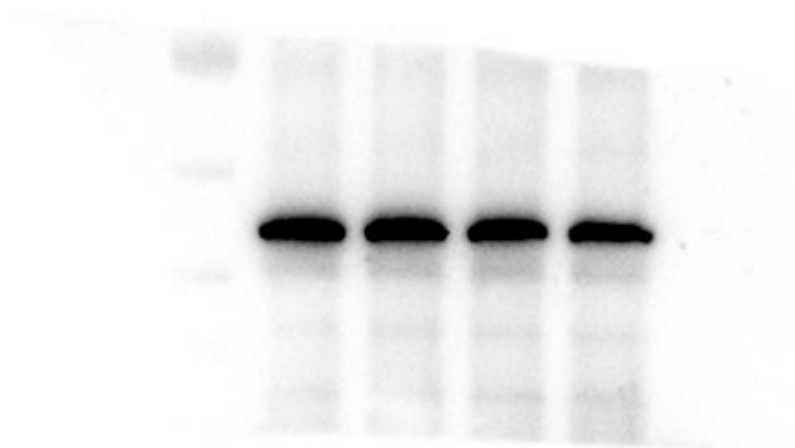
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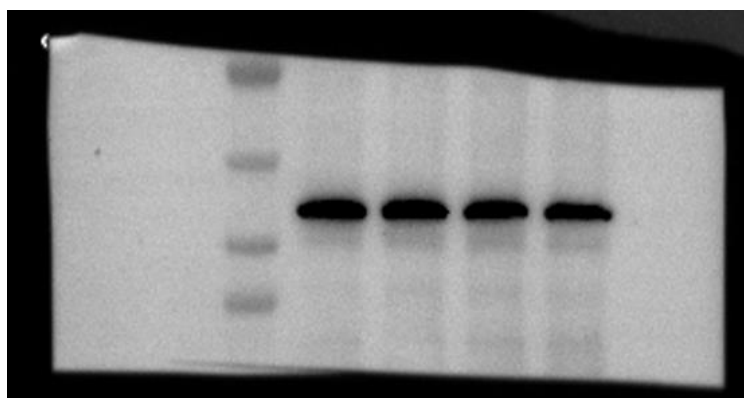
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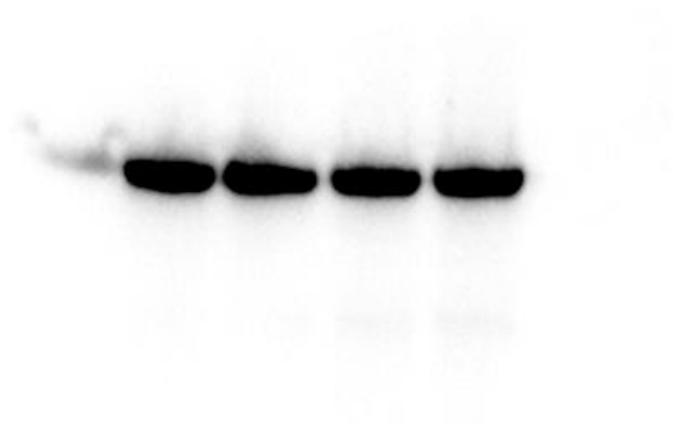
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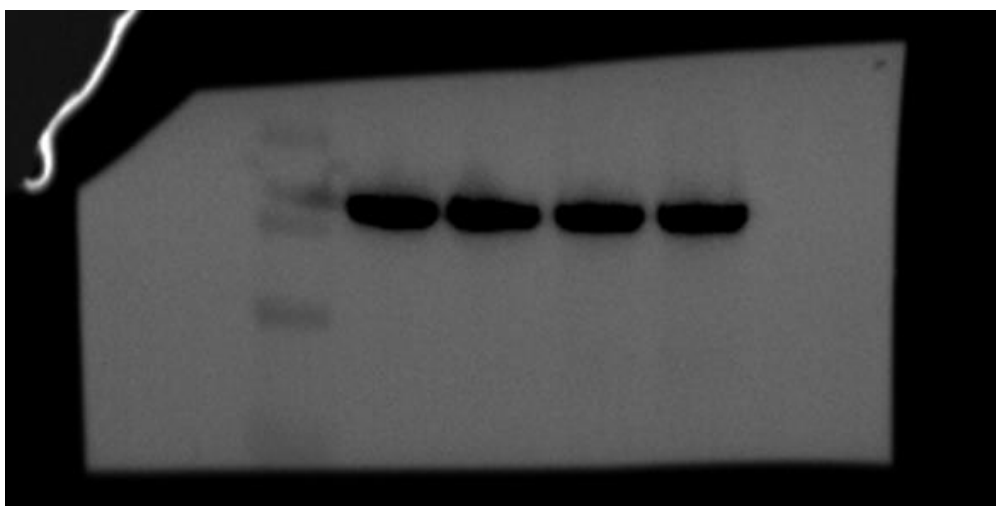
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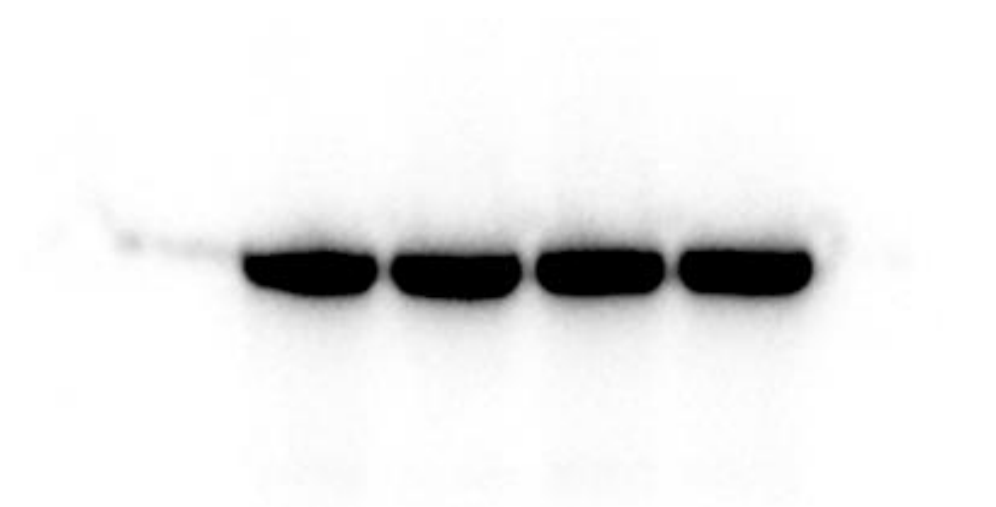
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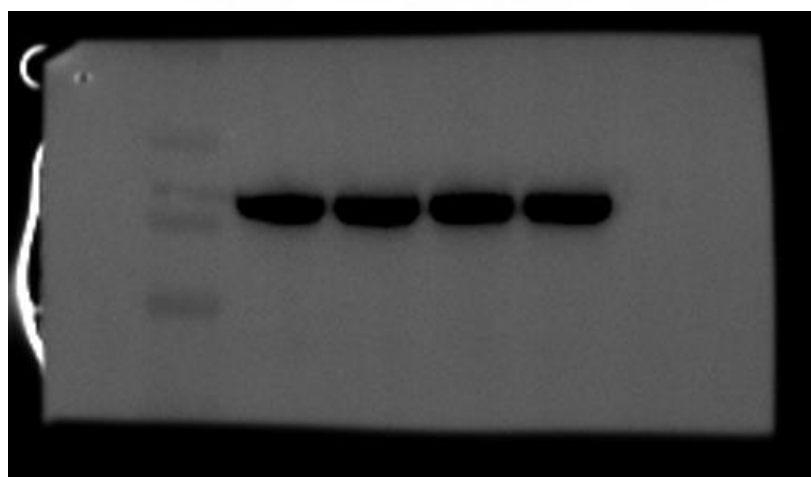
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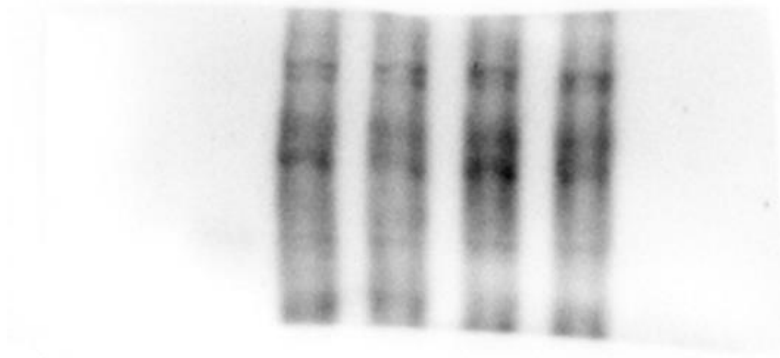
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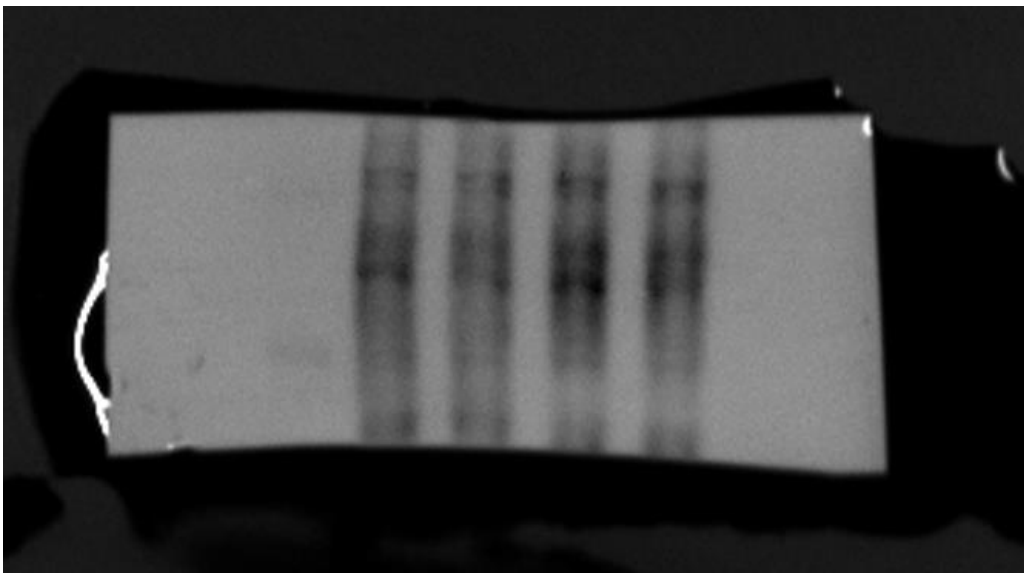
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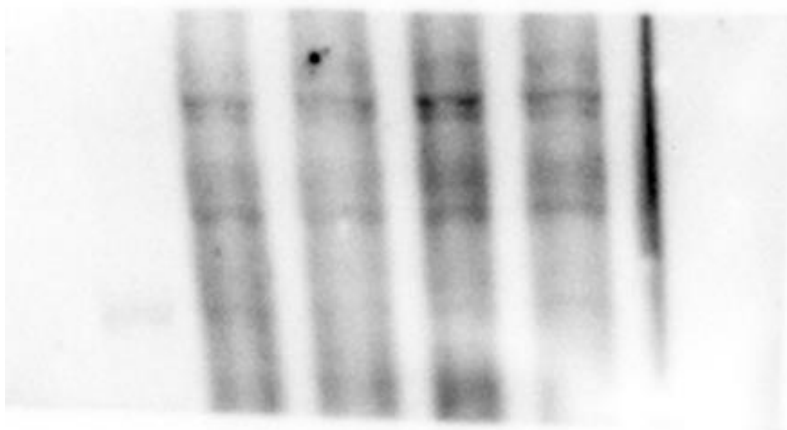
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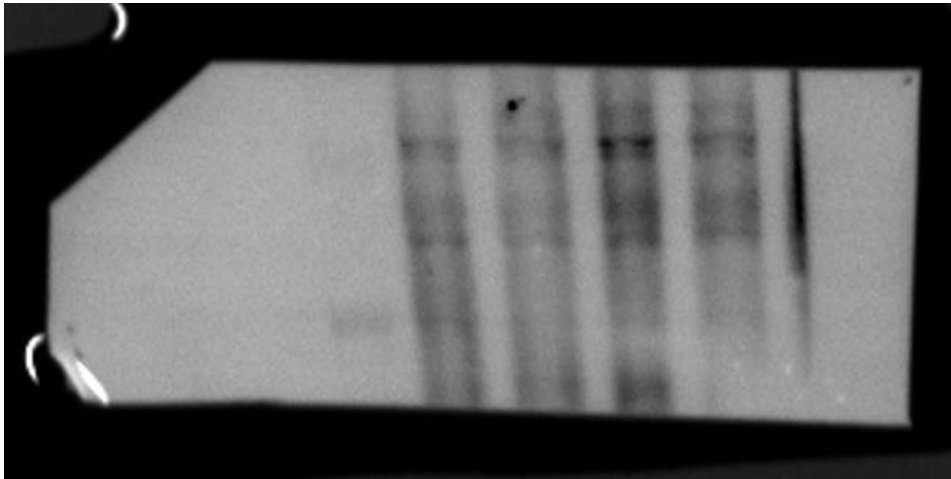
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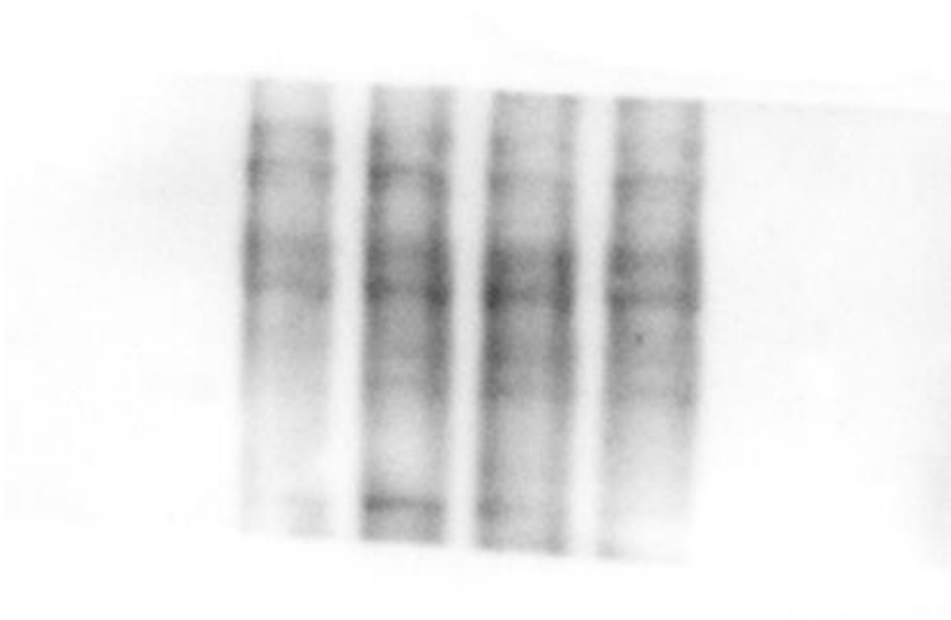
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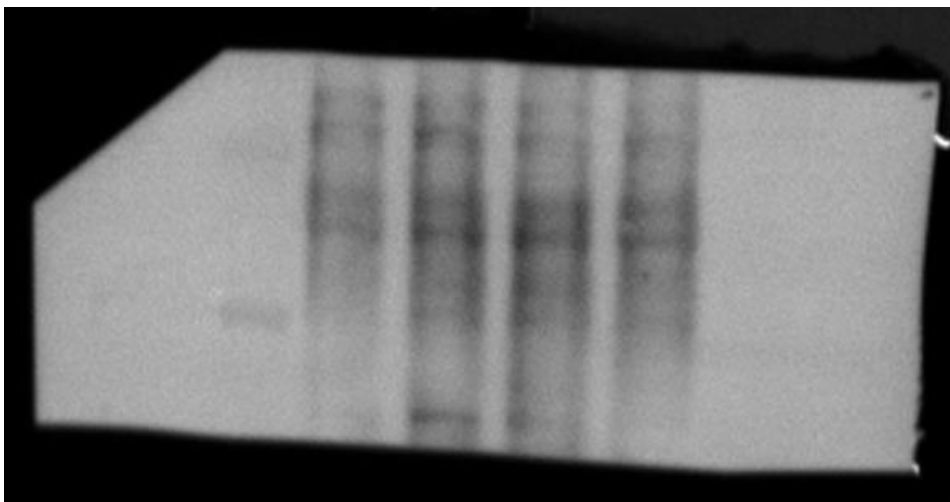
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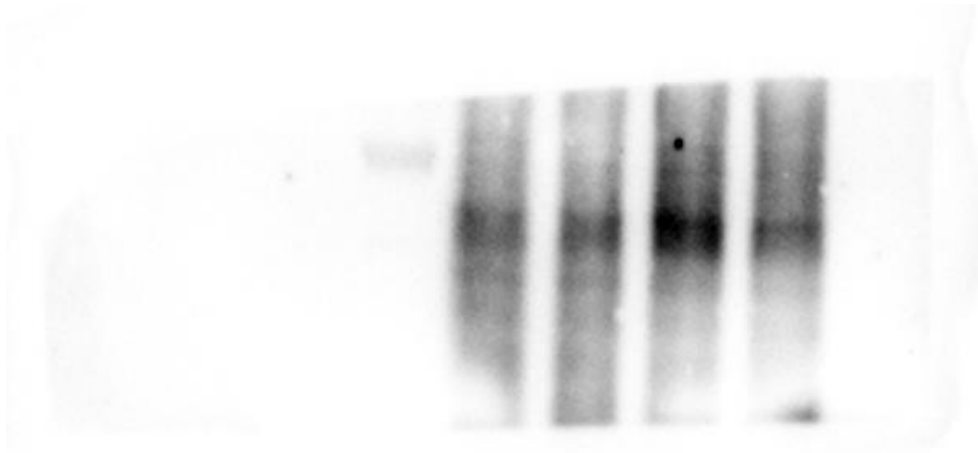
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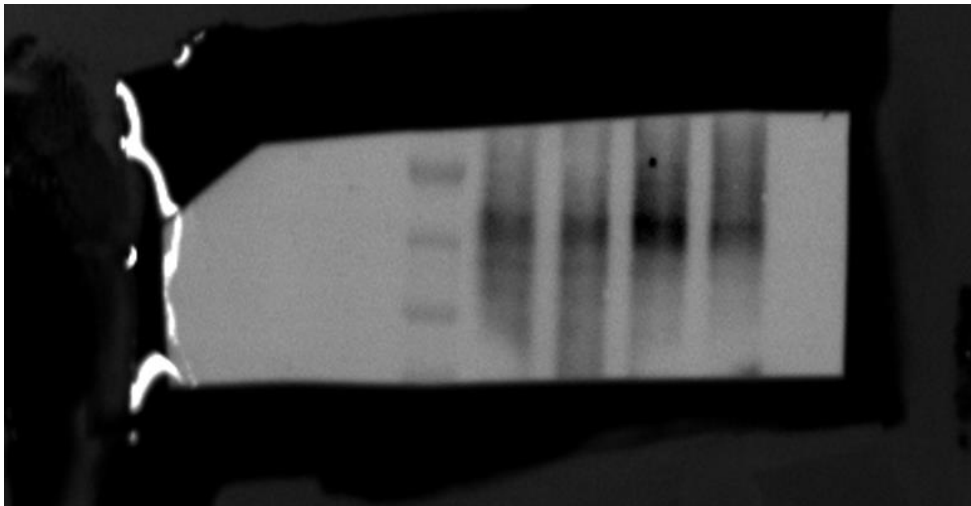
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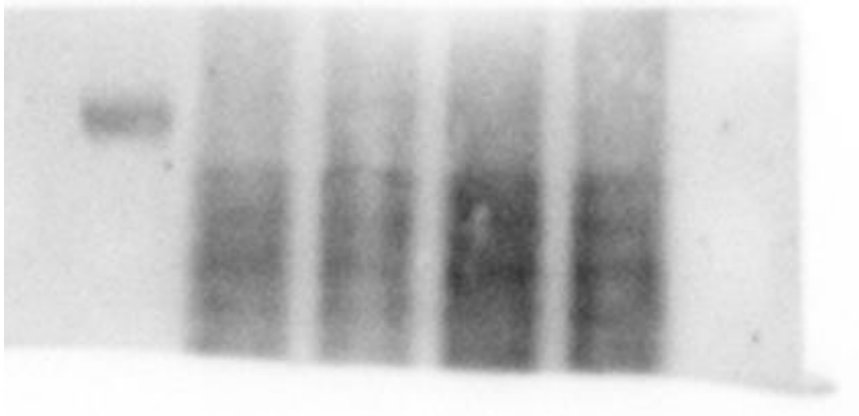
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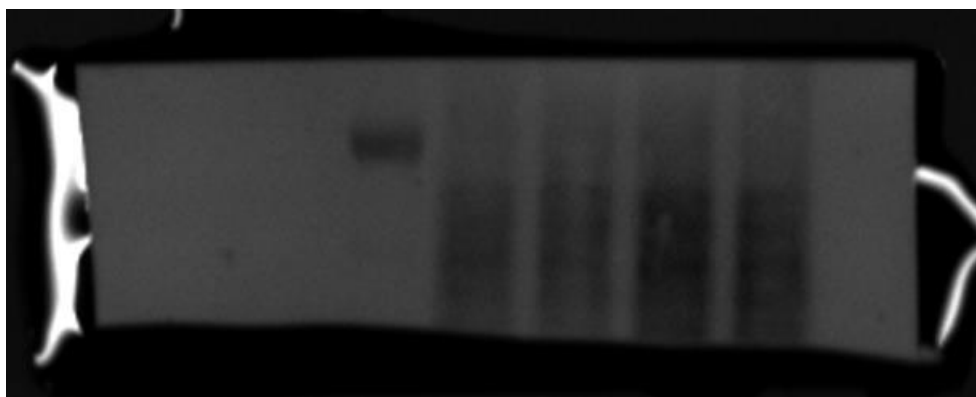
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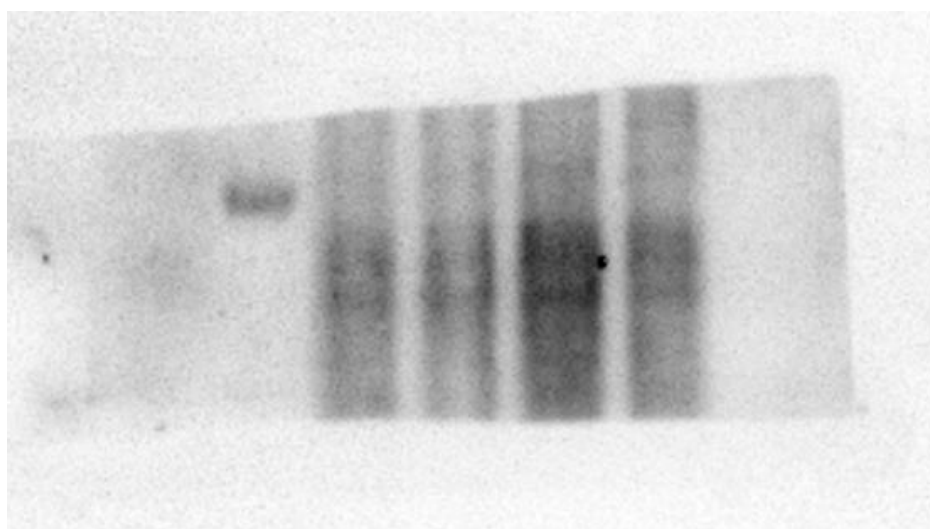
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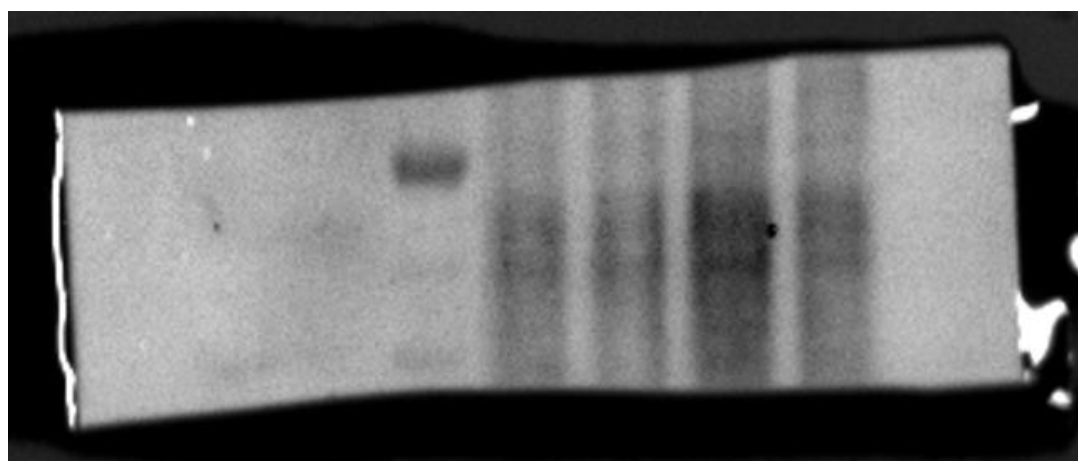
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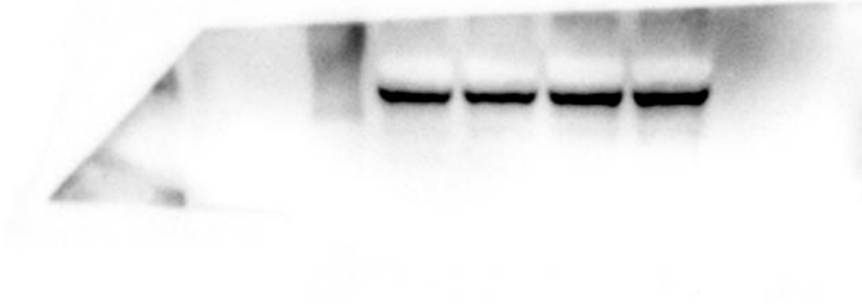
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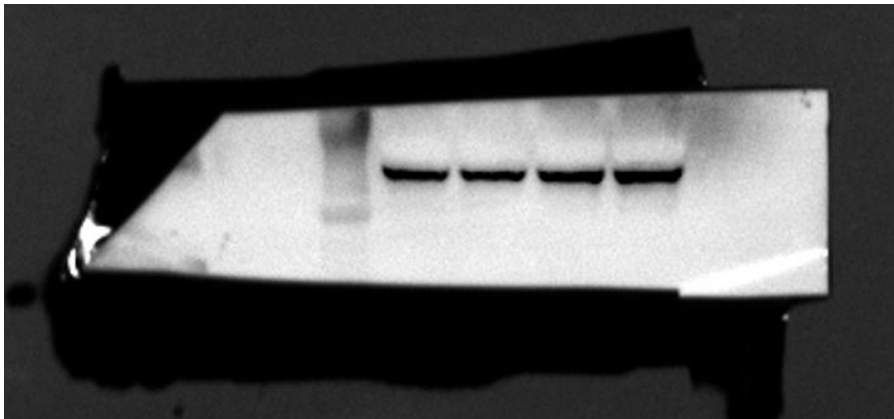
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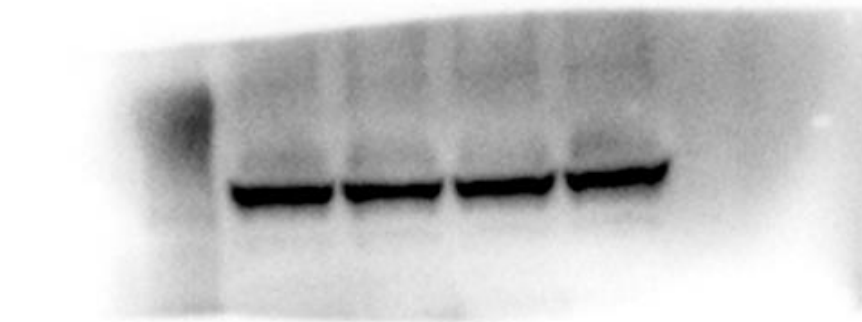
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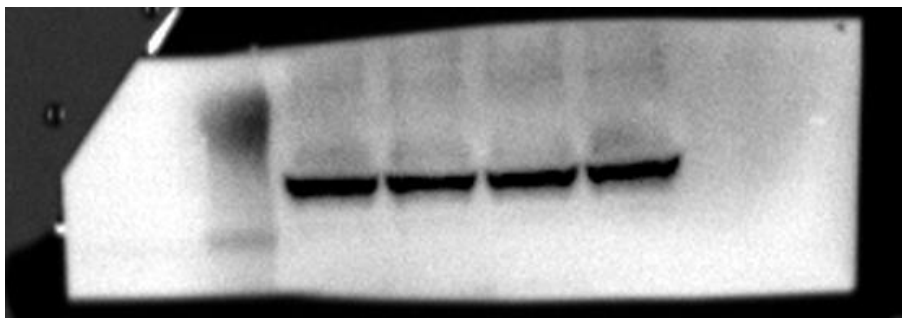
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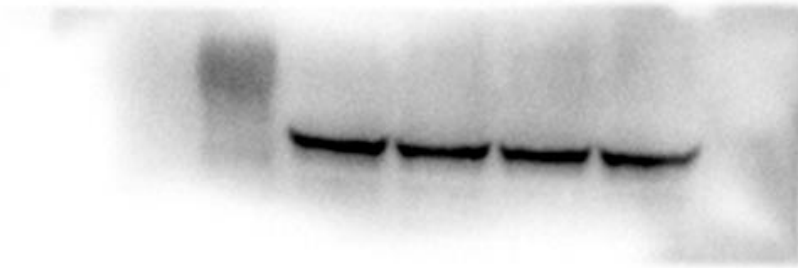
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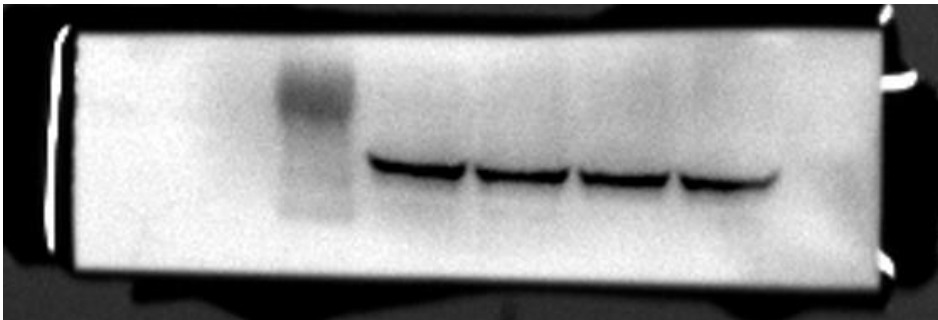
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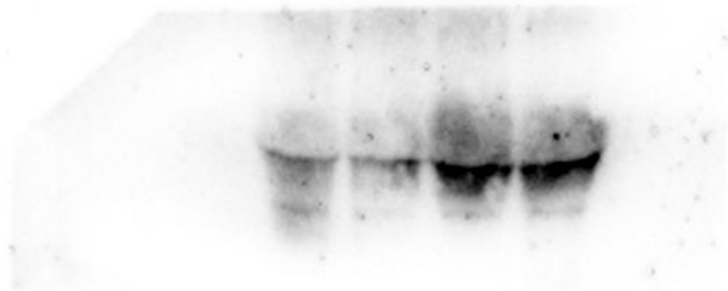
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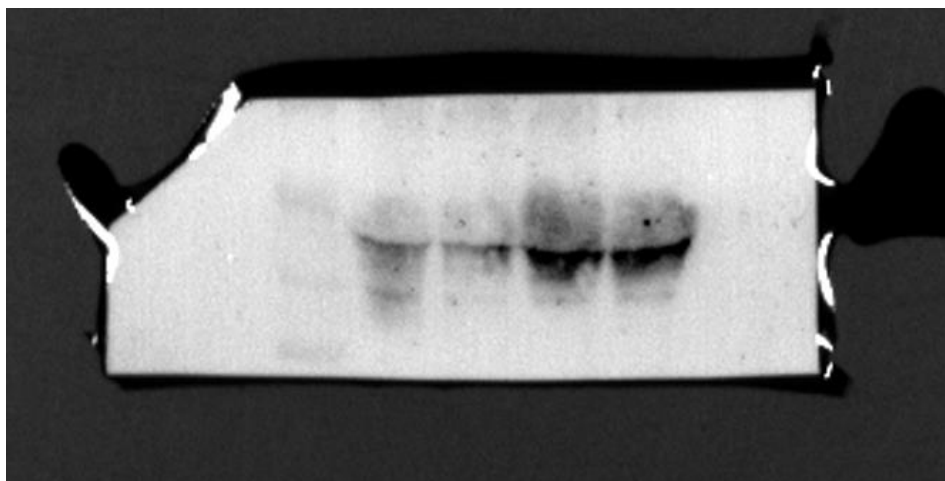
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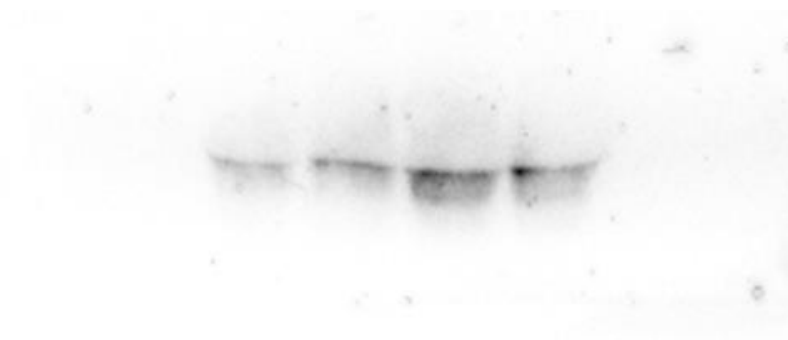
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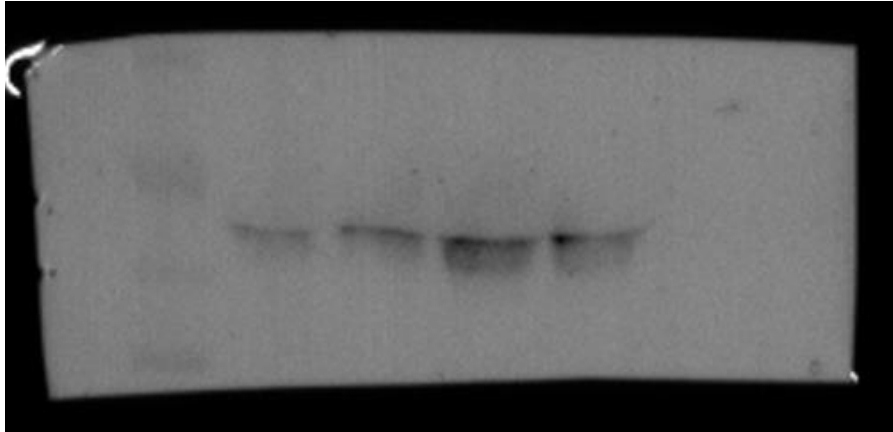
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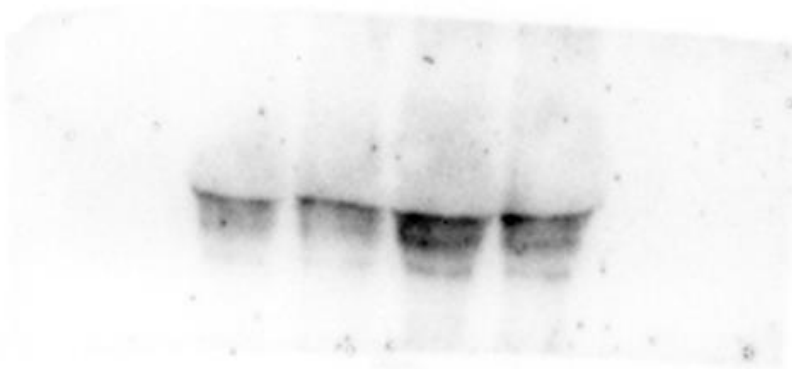
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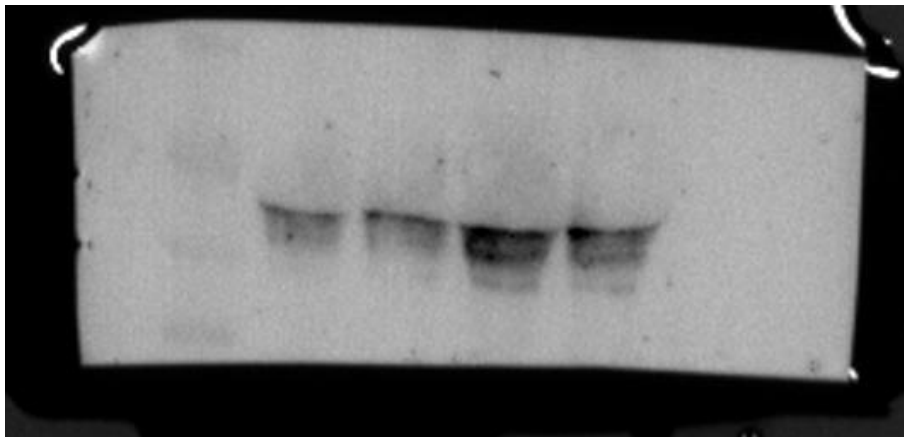
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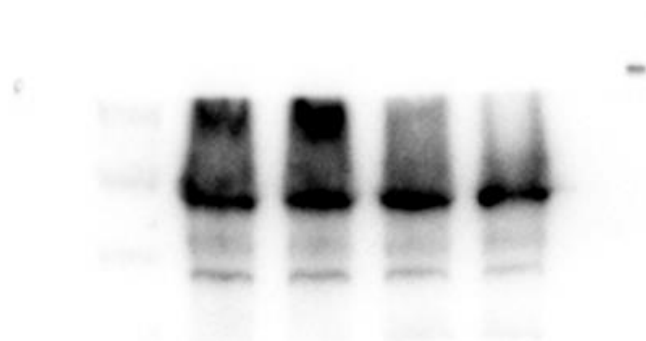
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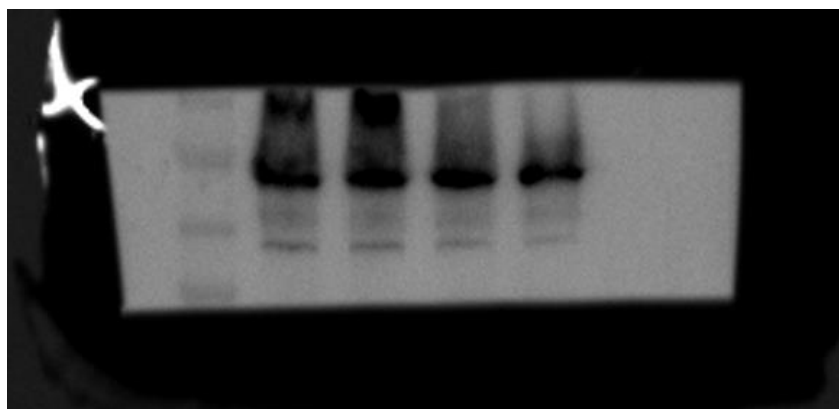
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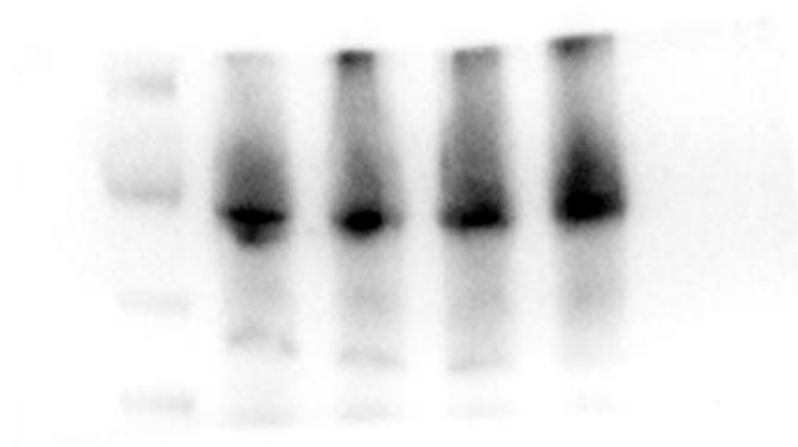
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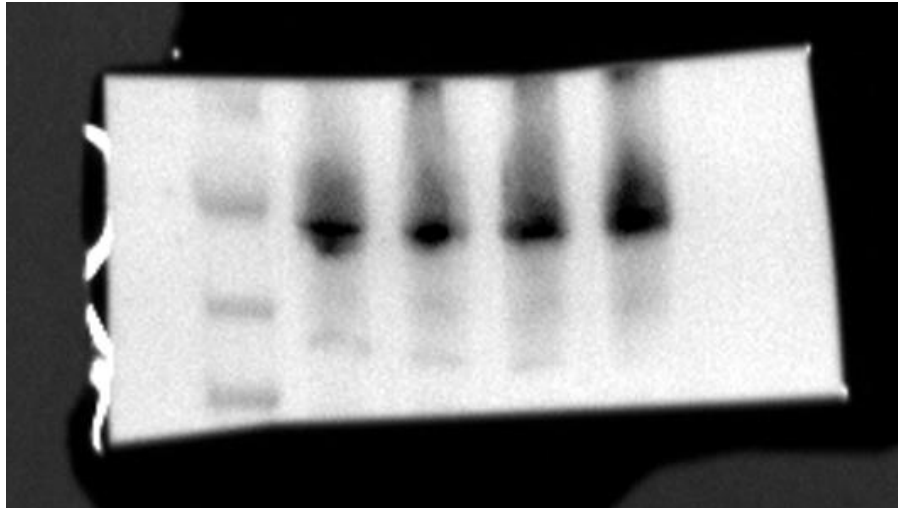
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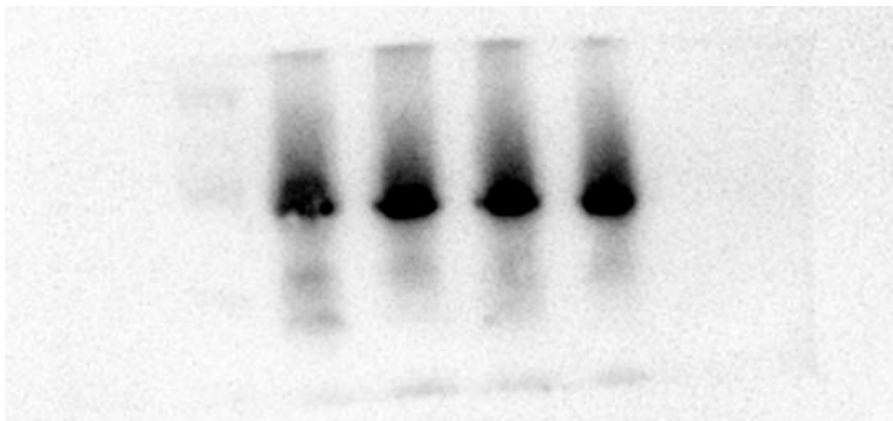
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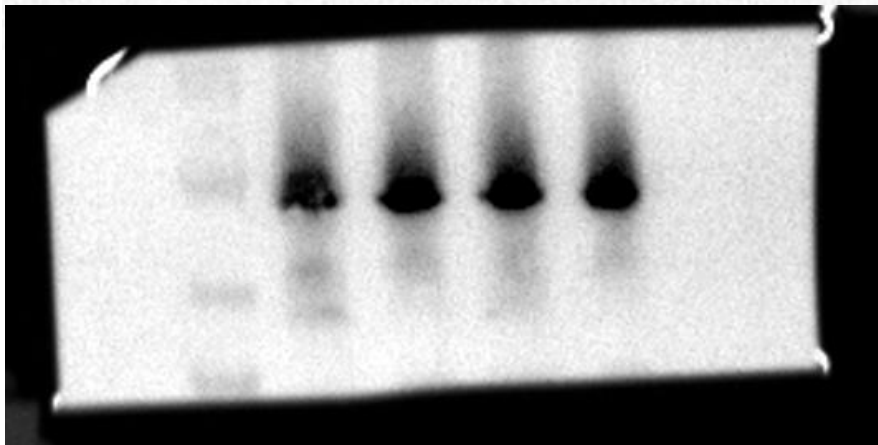
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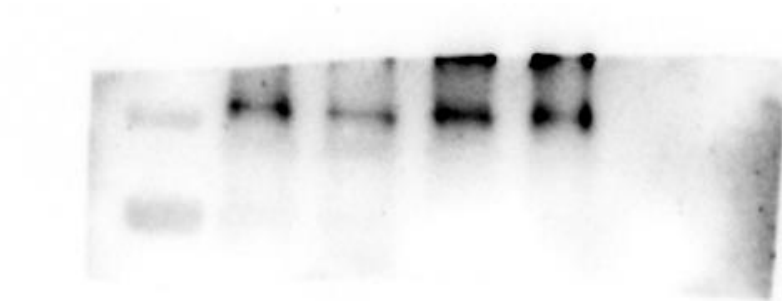
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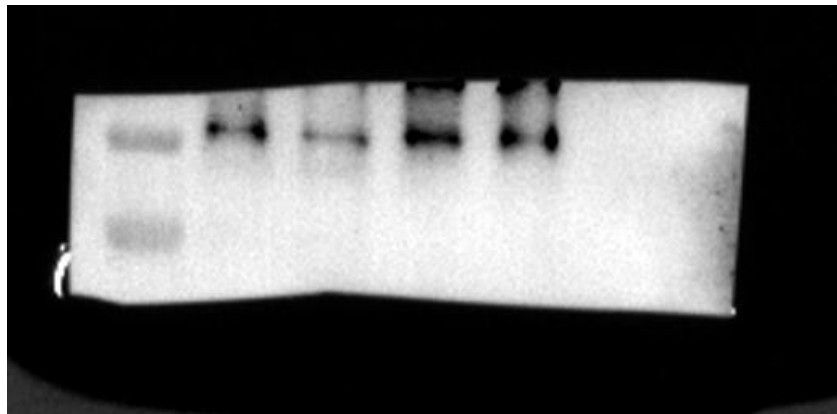
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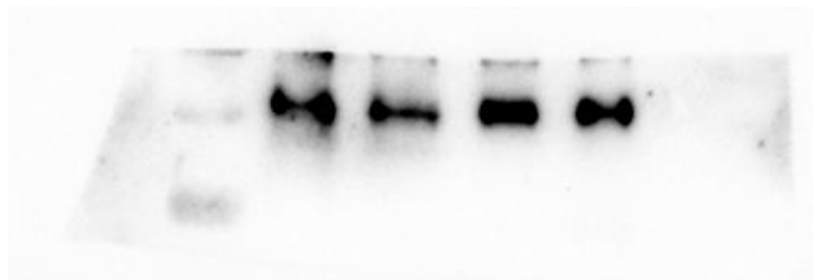
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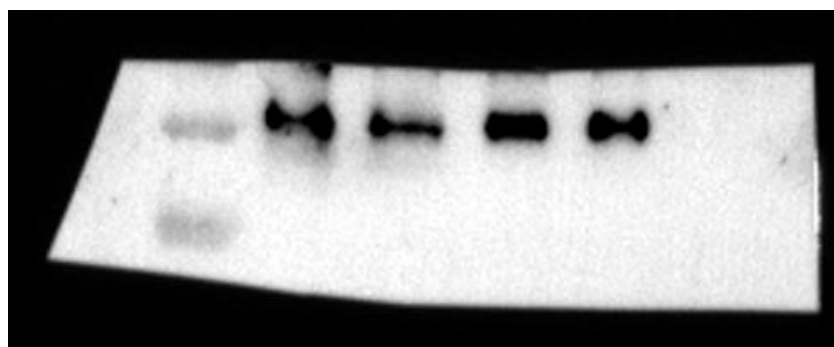
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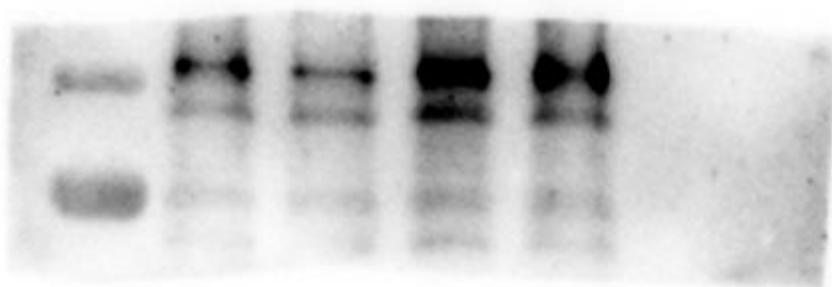
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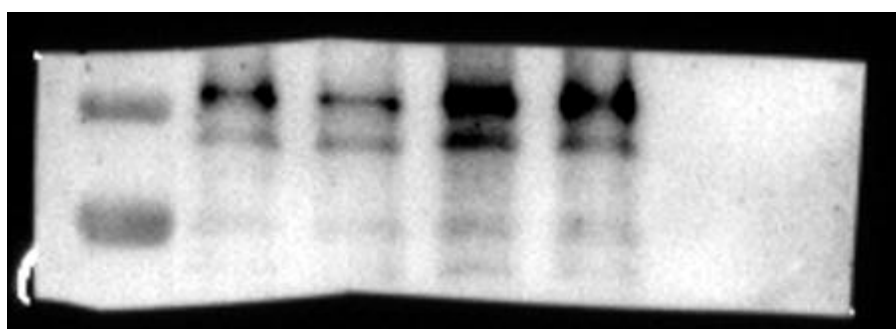
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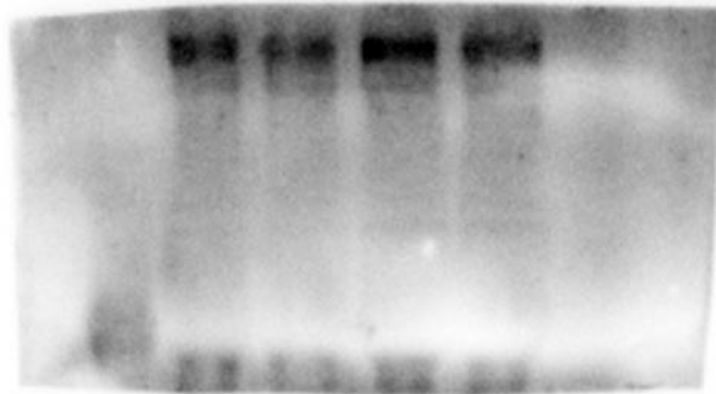
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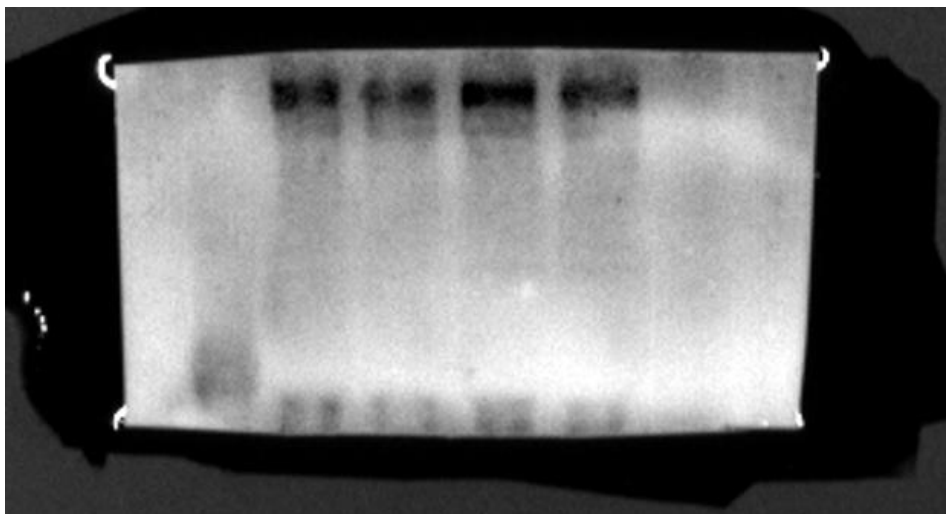
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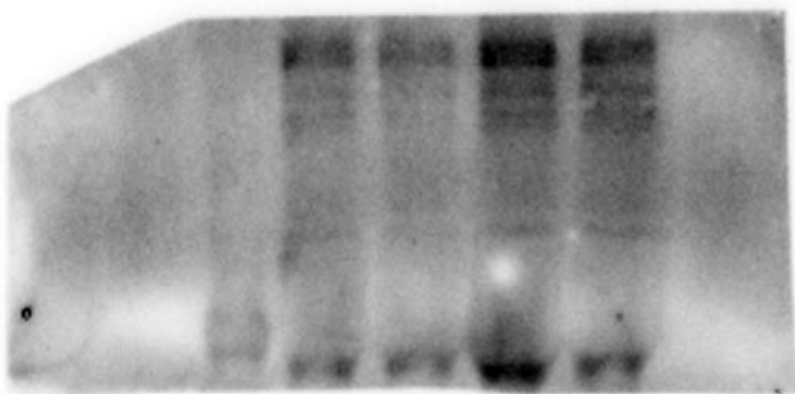
CON CON-ZEA HFD HFD-ZEA



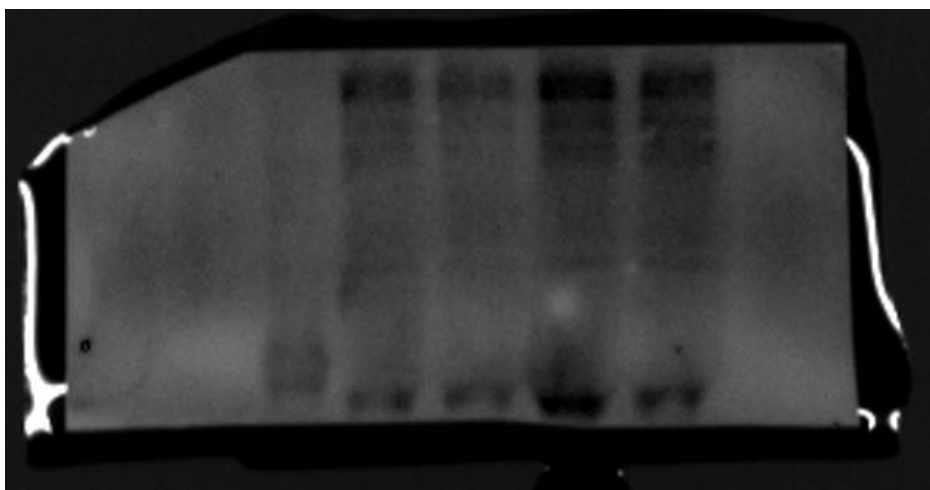
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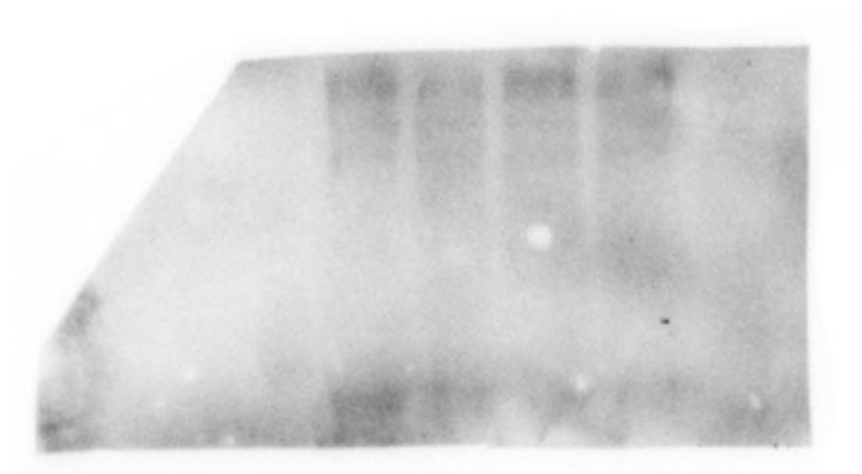
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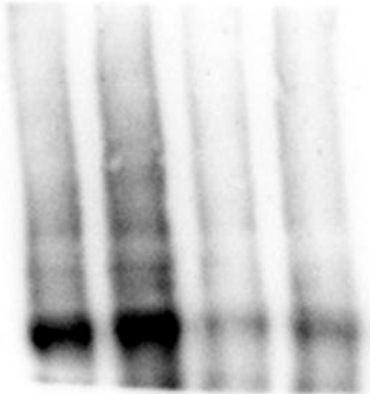
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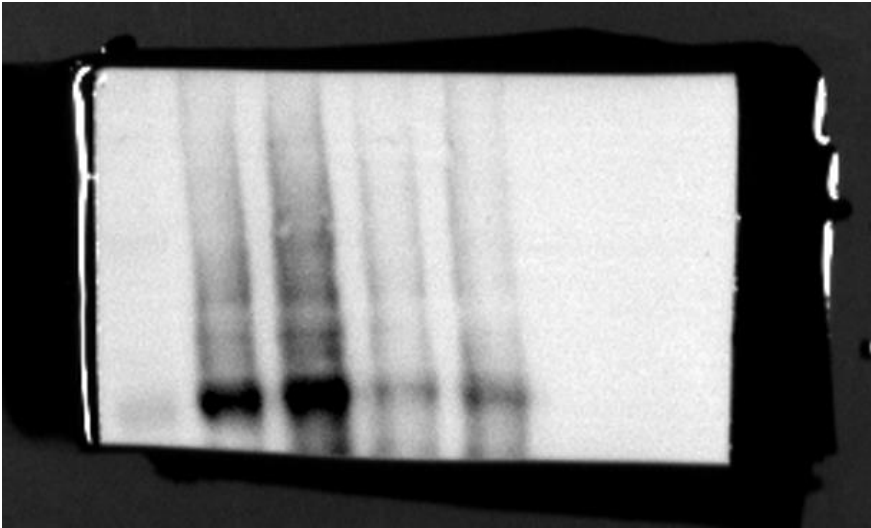
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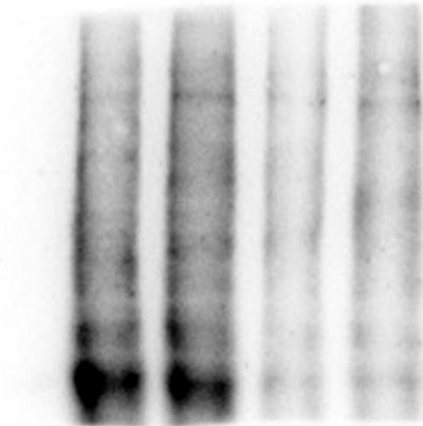
CON CON-ZEA HFD HFD-ZEA



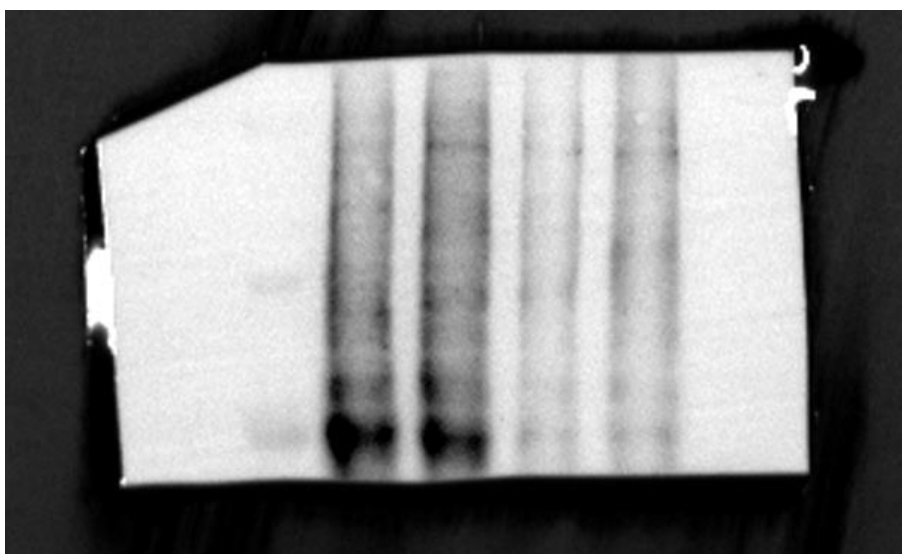
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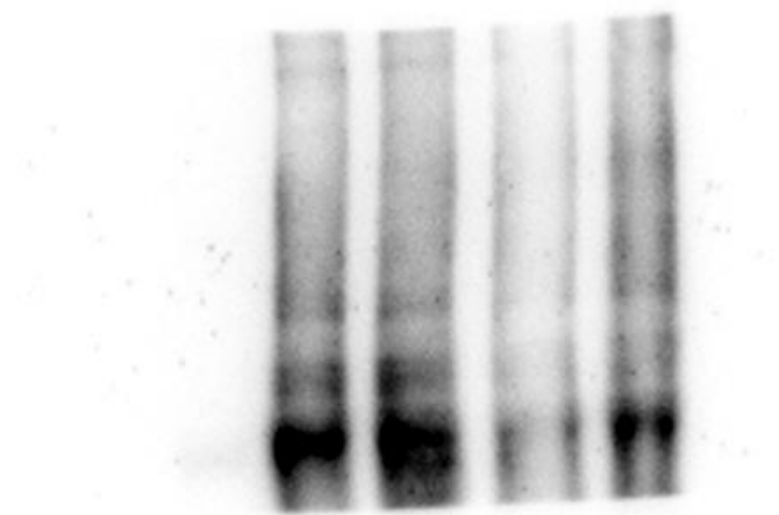
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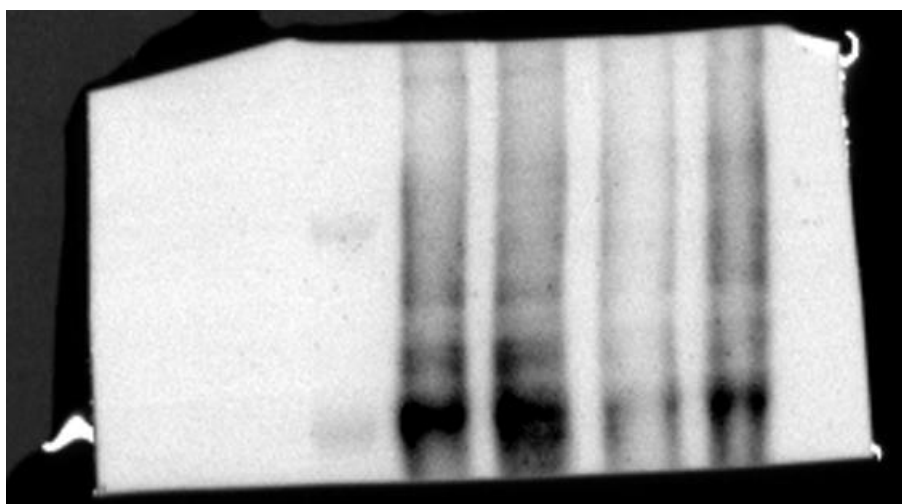
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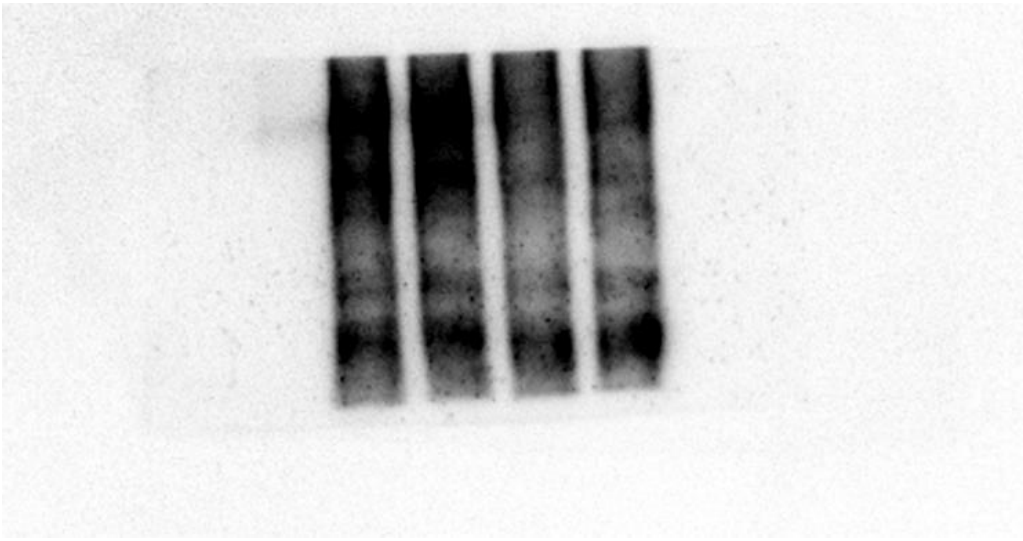
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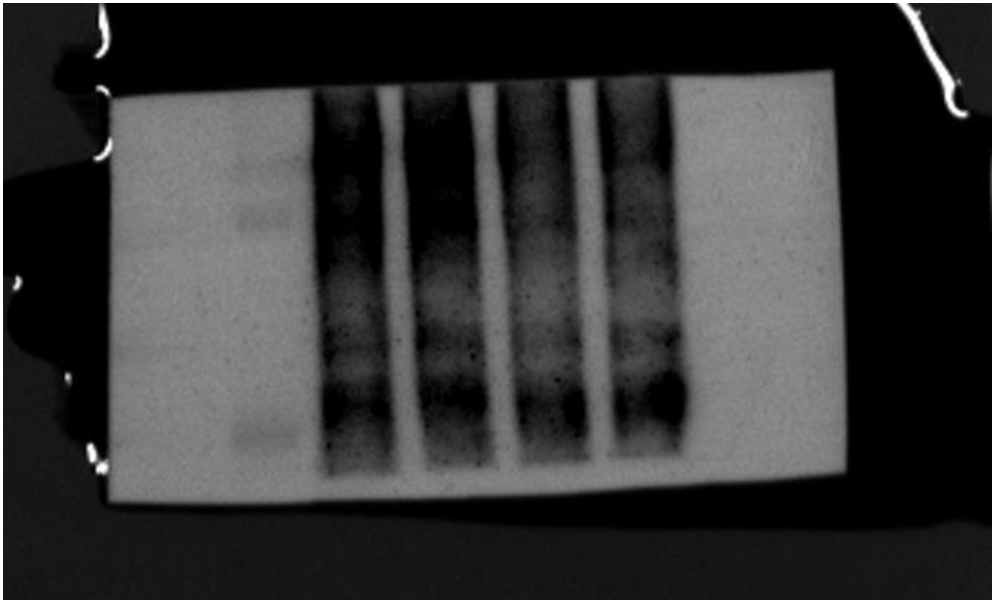
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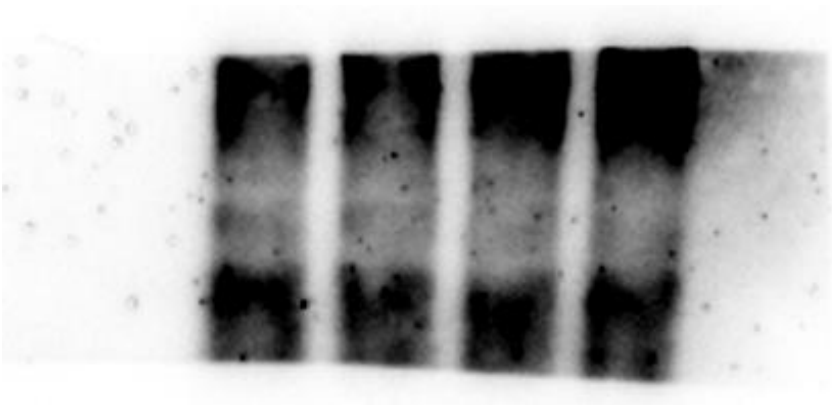
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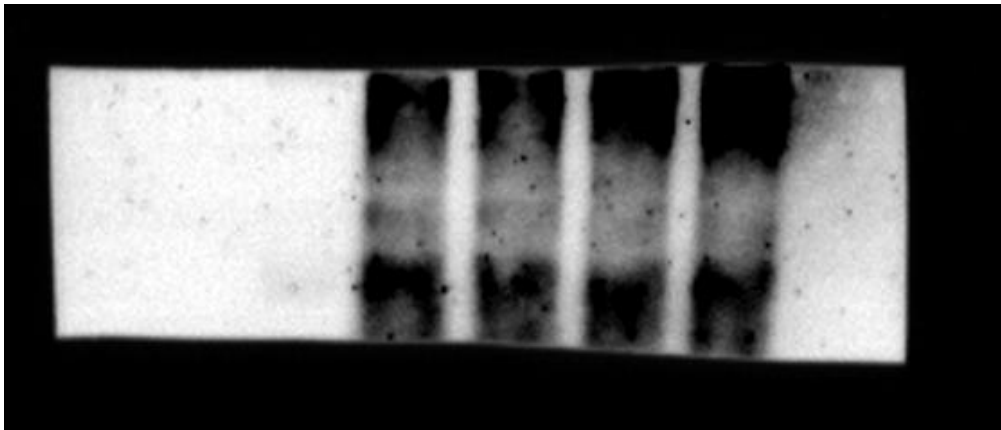
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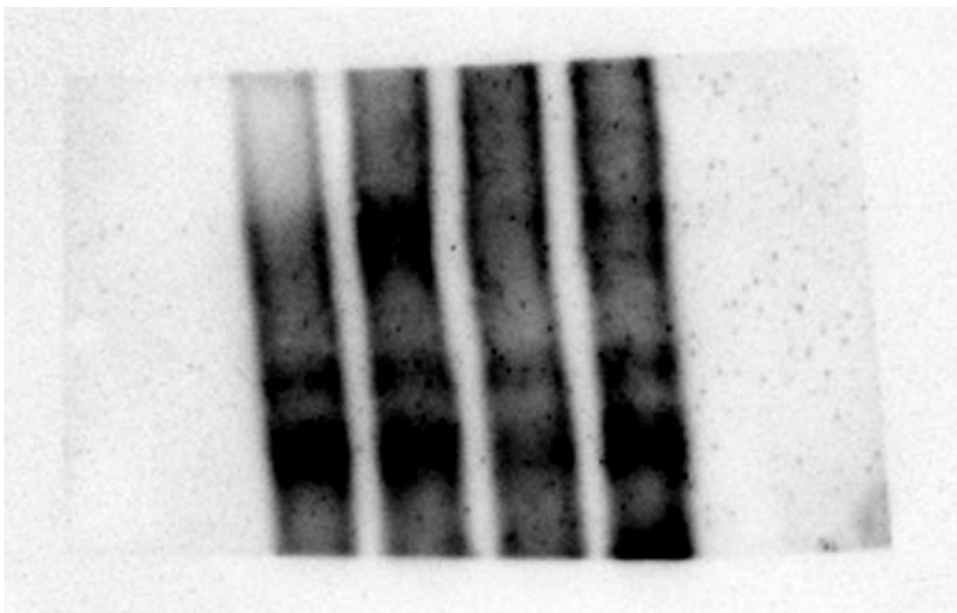
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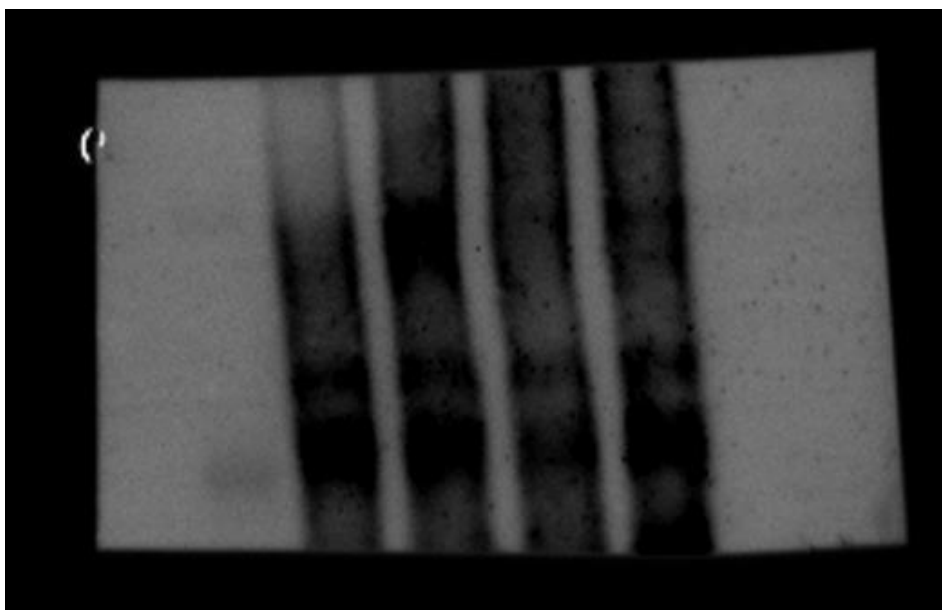
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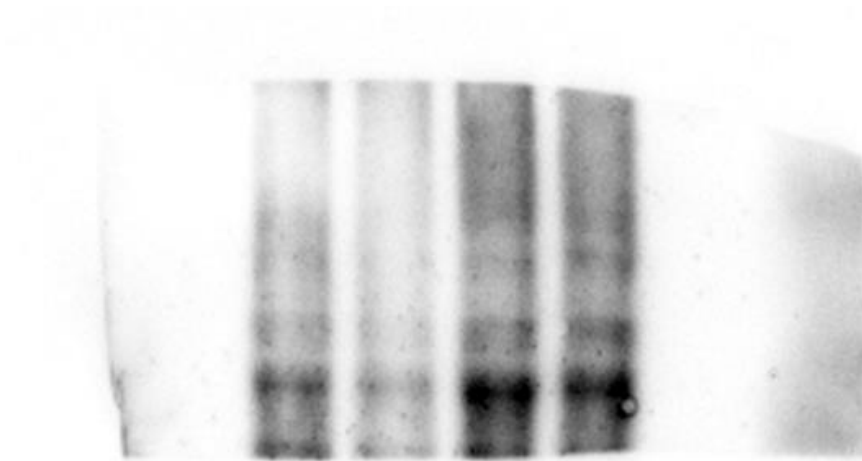
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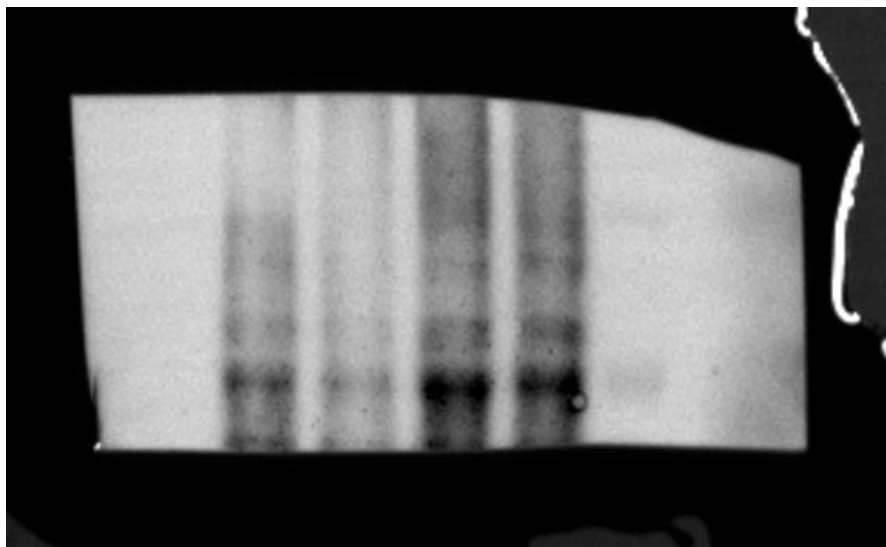
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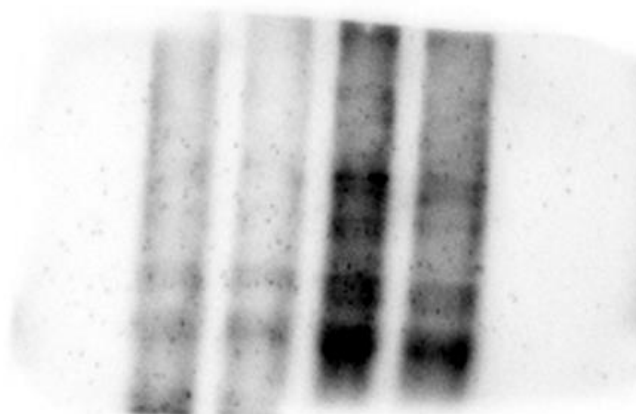
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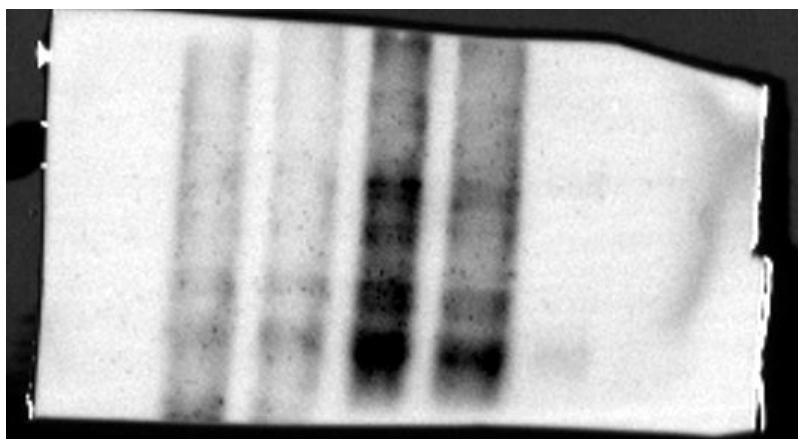
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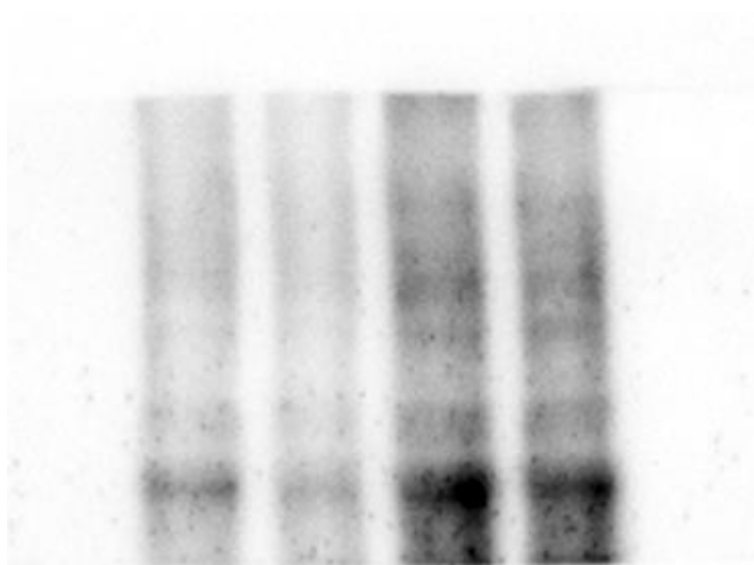
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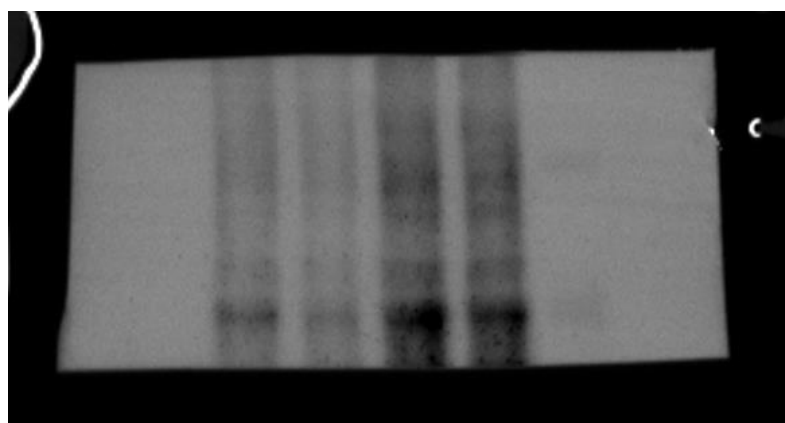
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88kDa



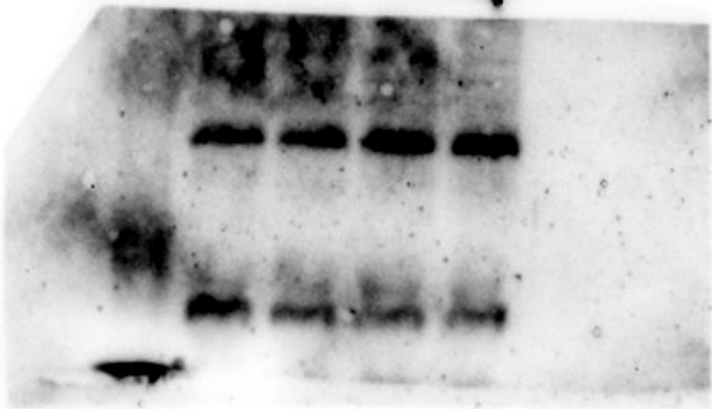
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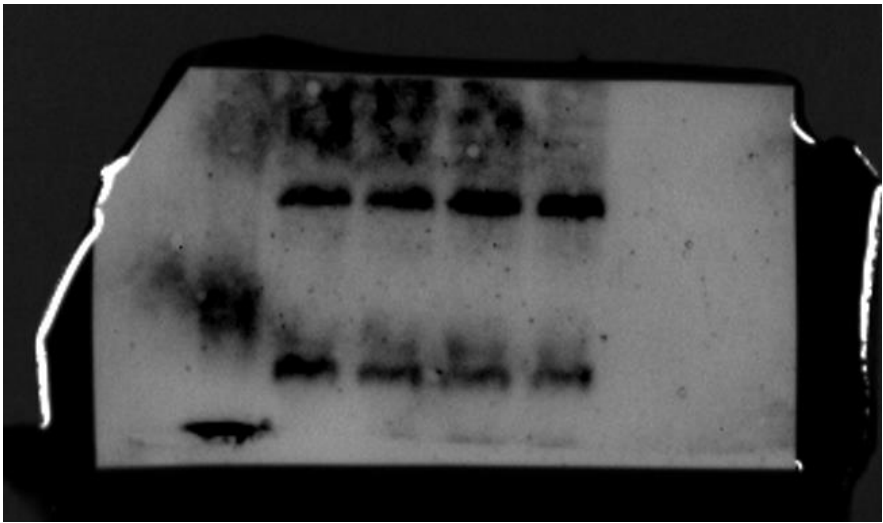
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STAT3

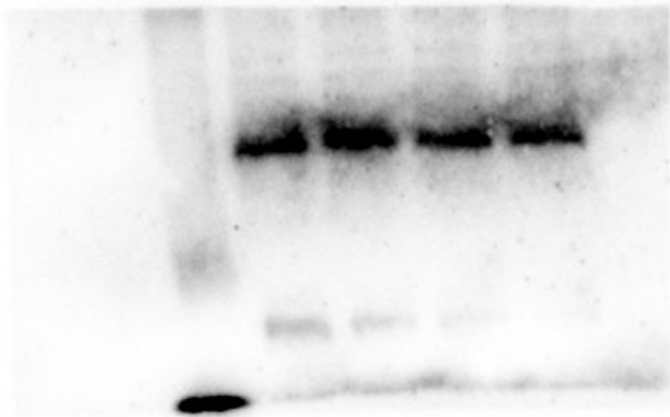
CON CON-ZEA HFD HFD-ZEA



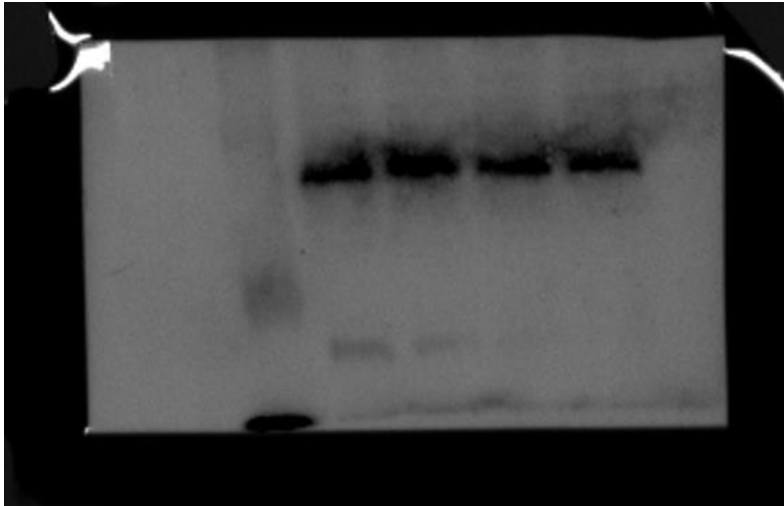
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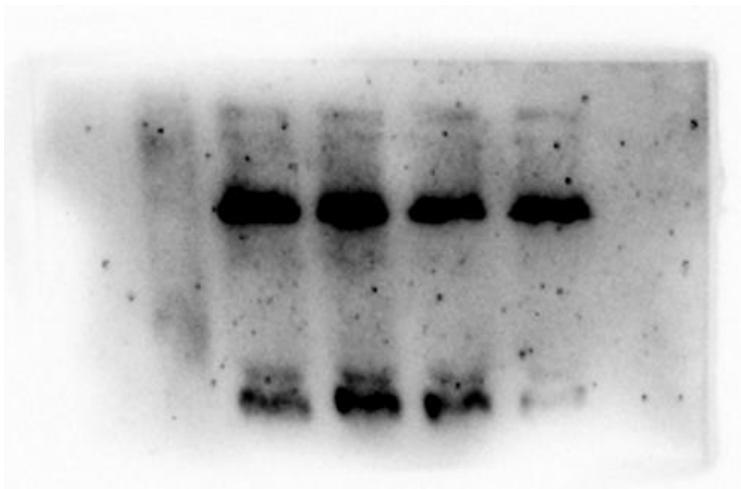
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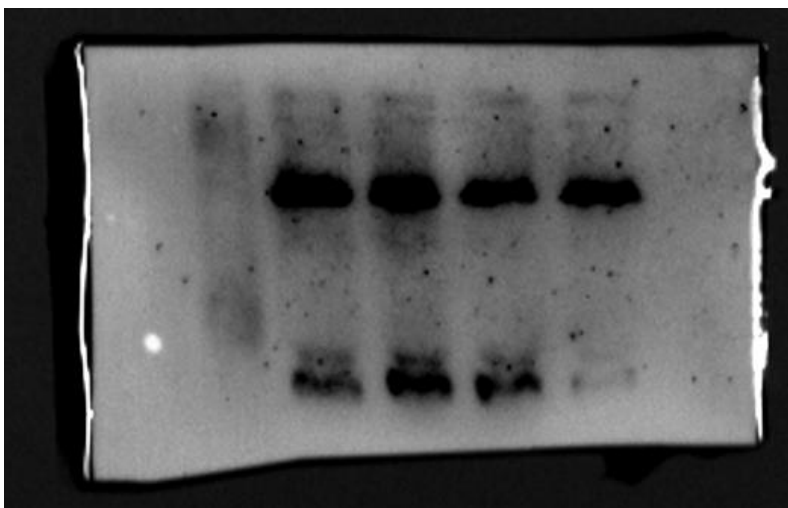
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88kDa



88kDa



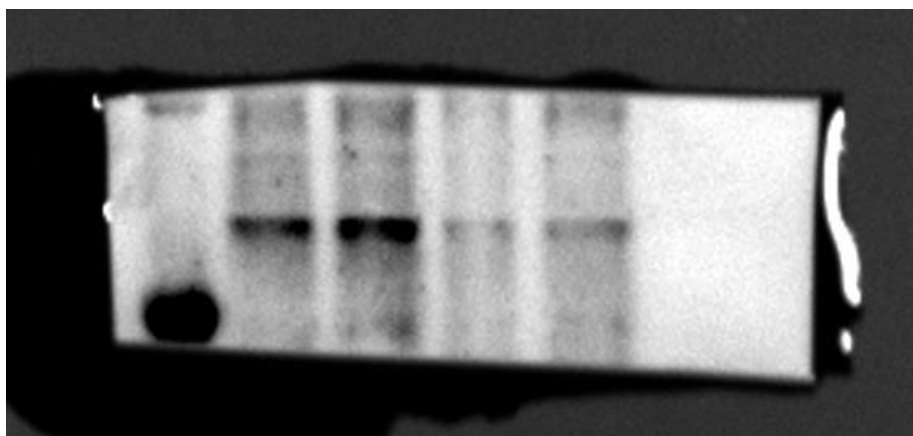
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CIITA

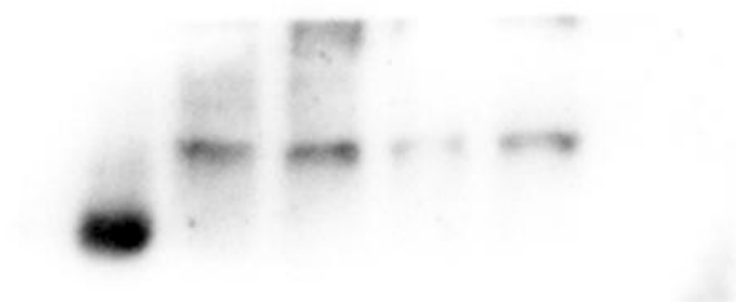
CON CON-ZEA HFD HFD-ZEA



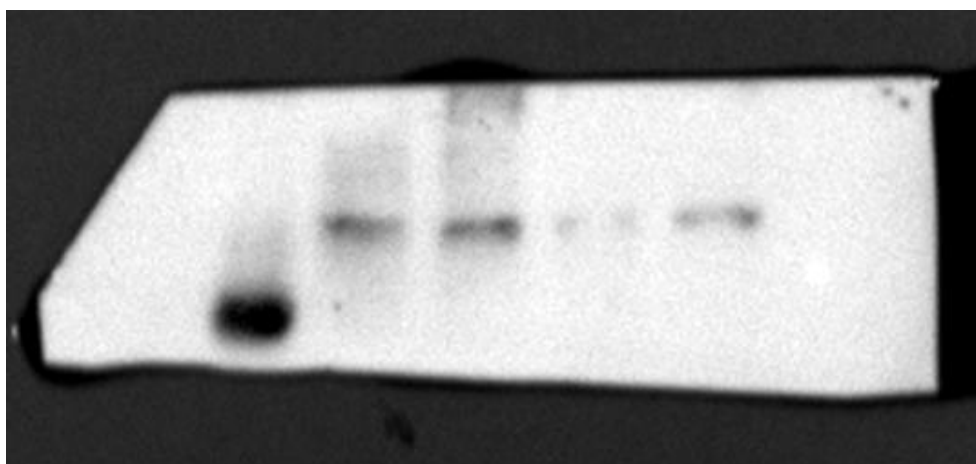
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124kDa



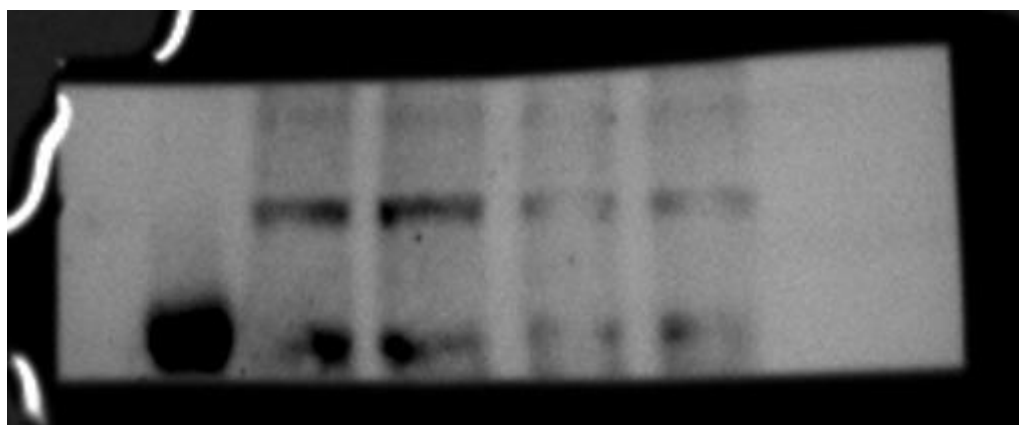
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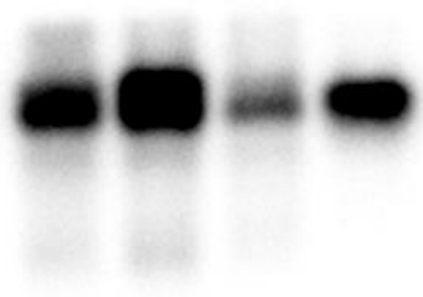
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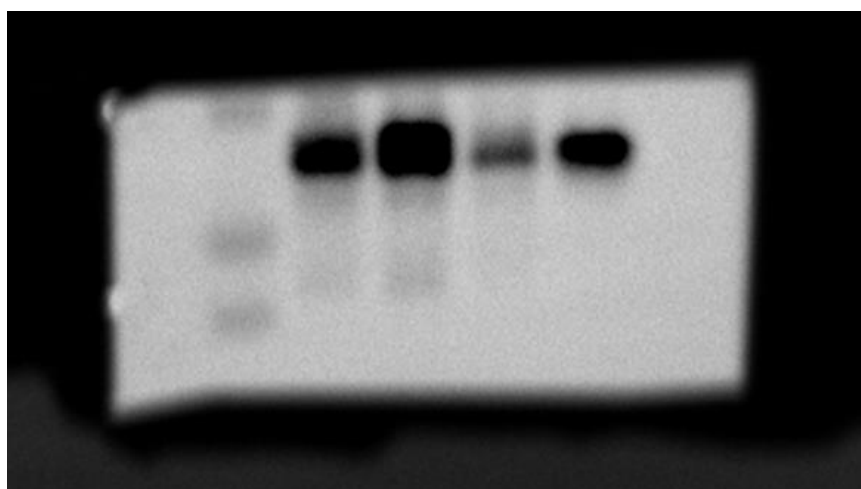
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MHC II

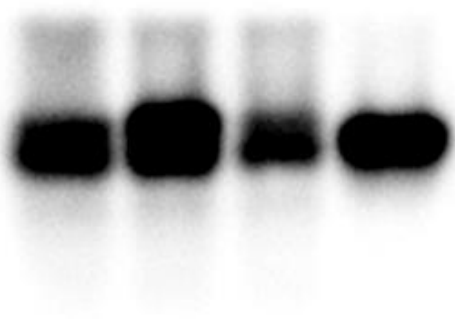
CON CON-ZEA HFD HFD-ZEA



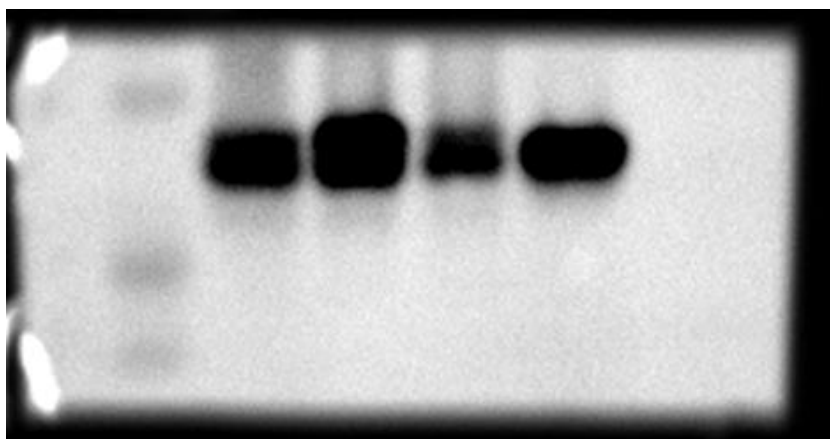
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30kDa



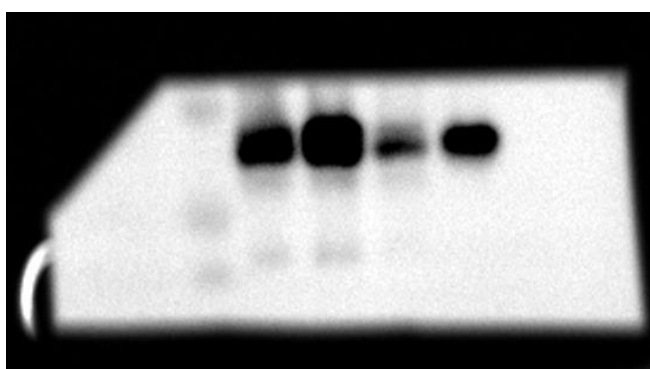
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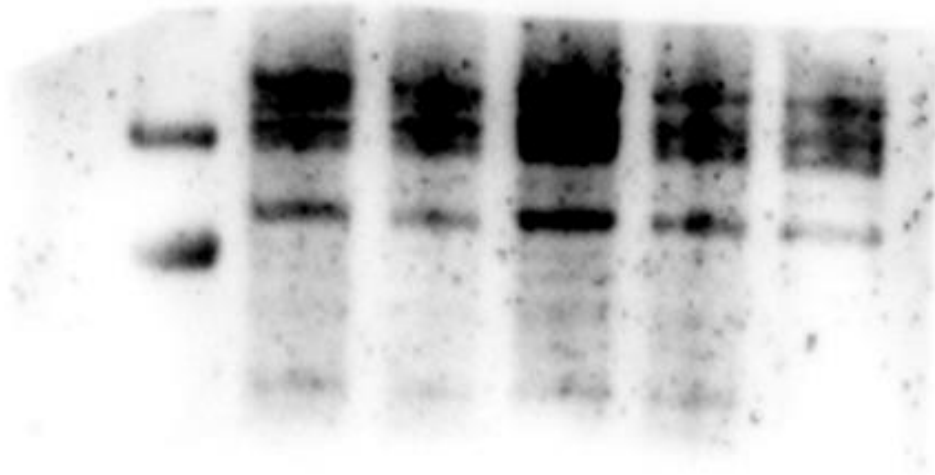
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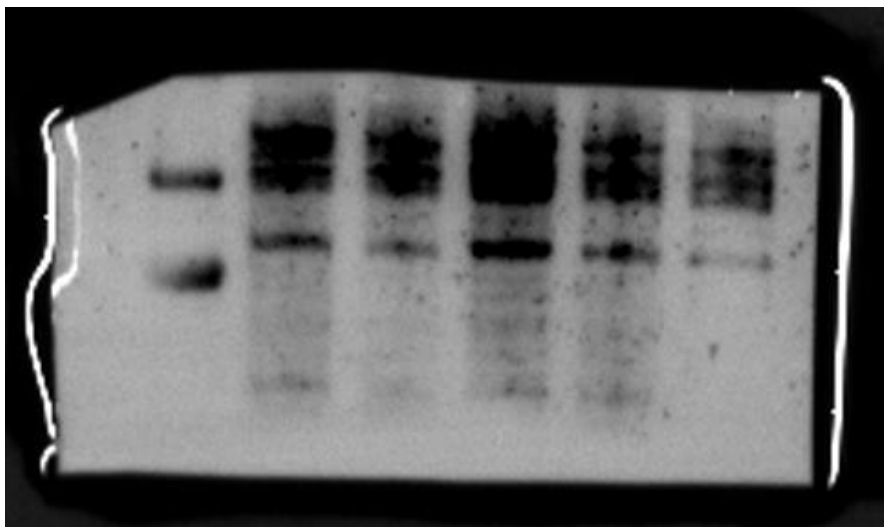
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MHC II

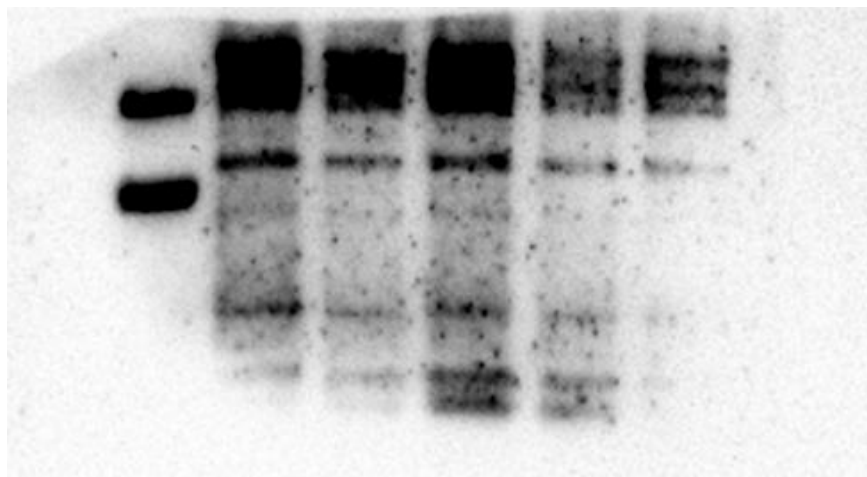
CON HFD HFD+ZEA HFD+Flu HFD+ZEA+Flu



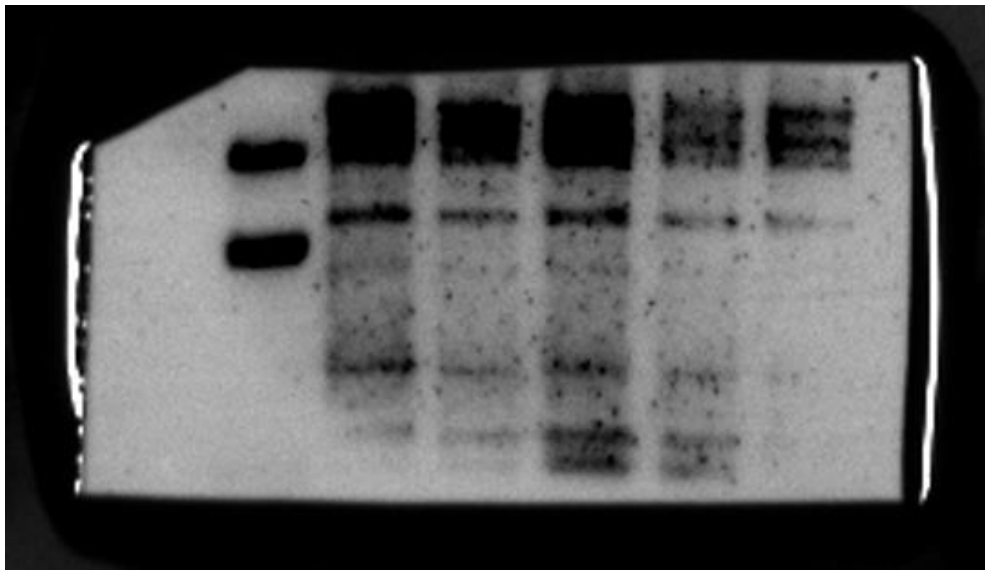
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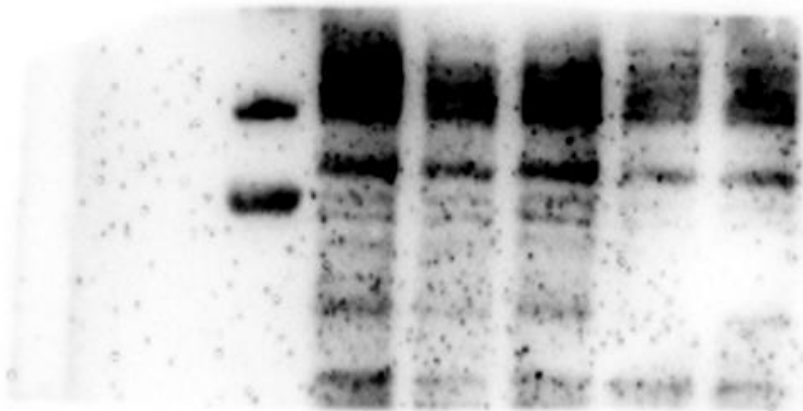
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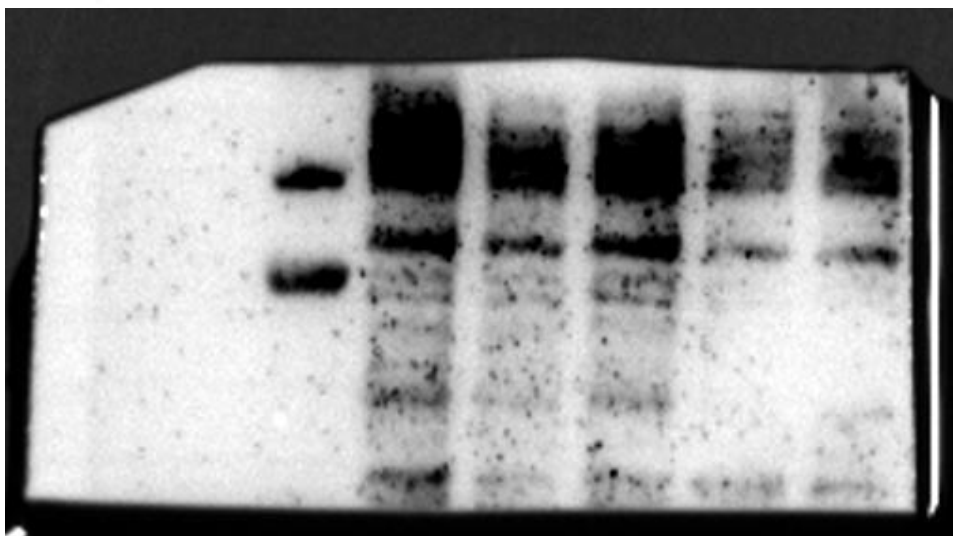
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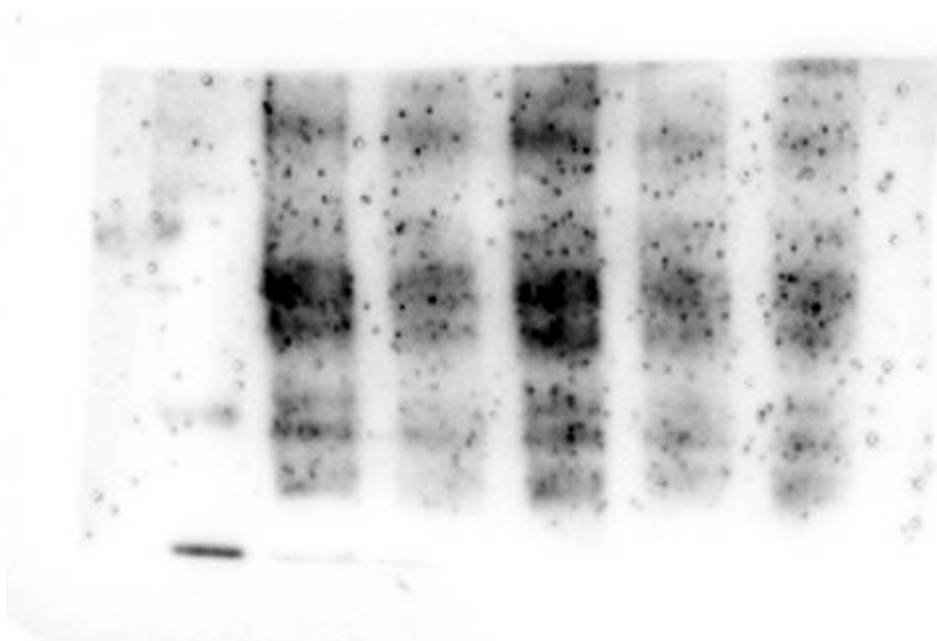
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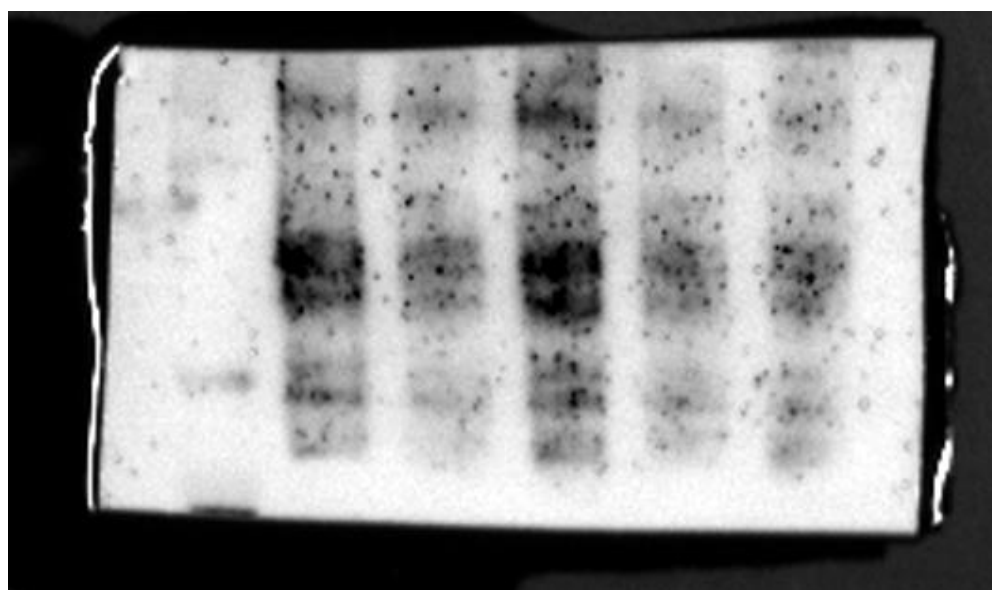
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CIITA

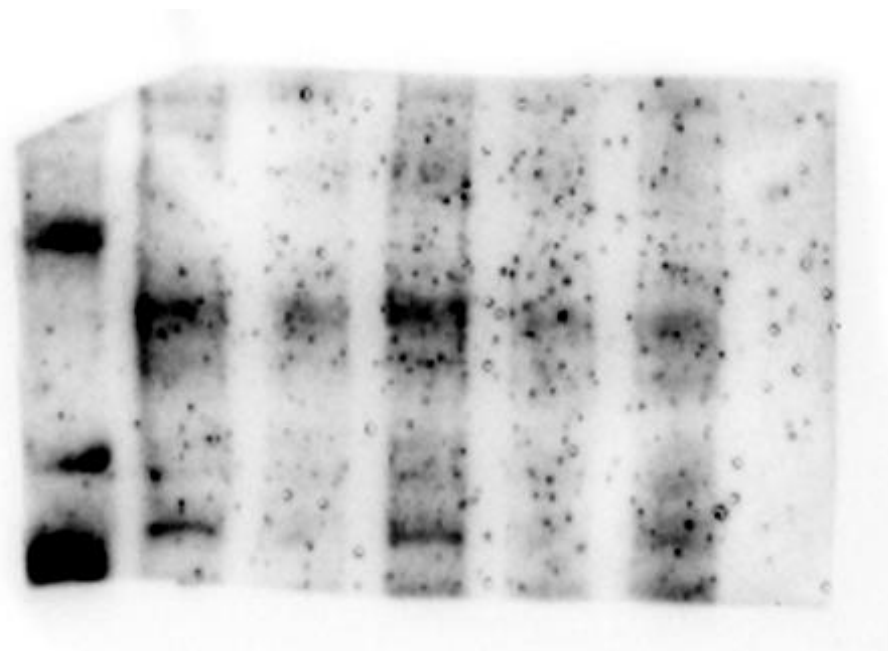
CON HFD HFD+ZEA HFD+Flu HFD+ZEA+Flu



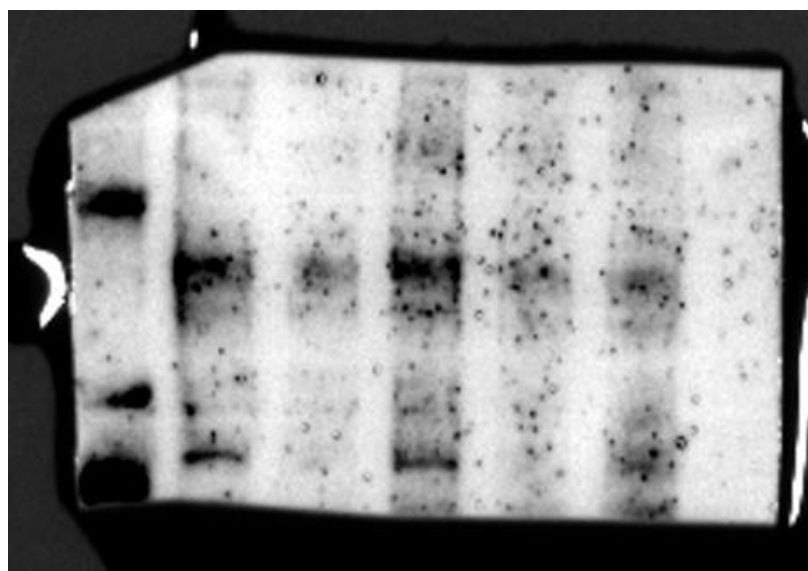
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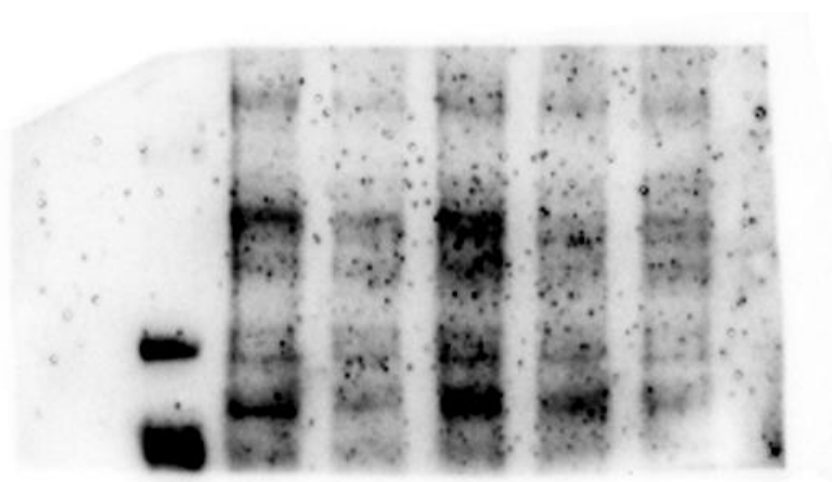
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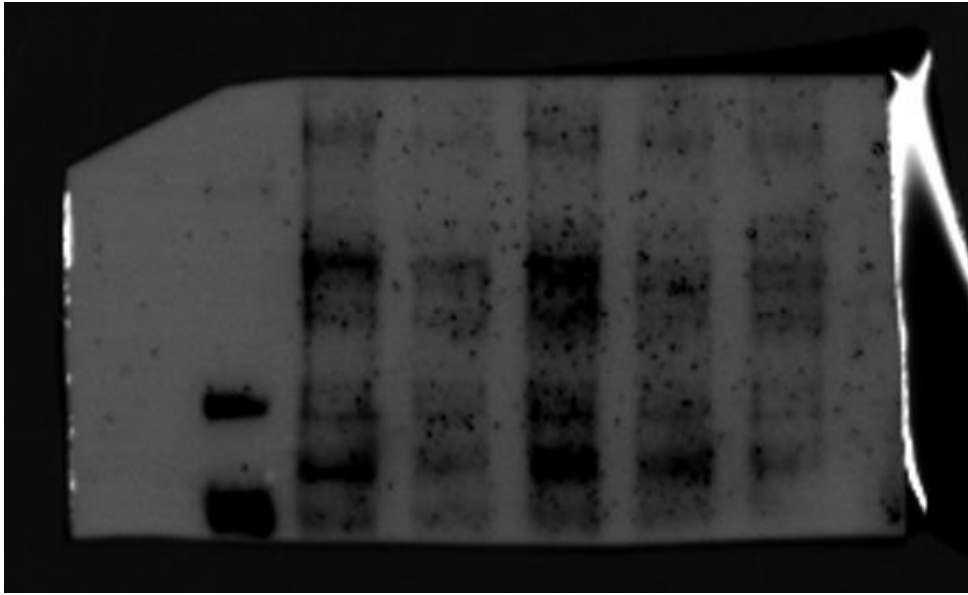
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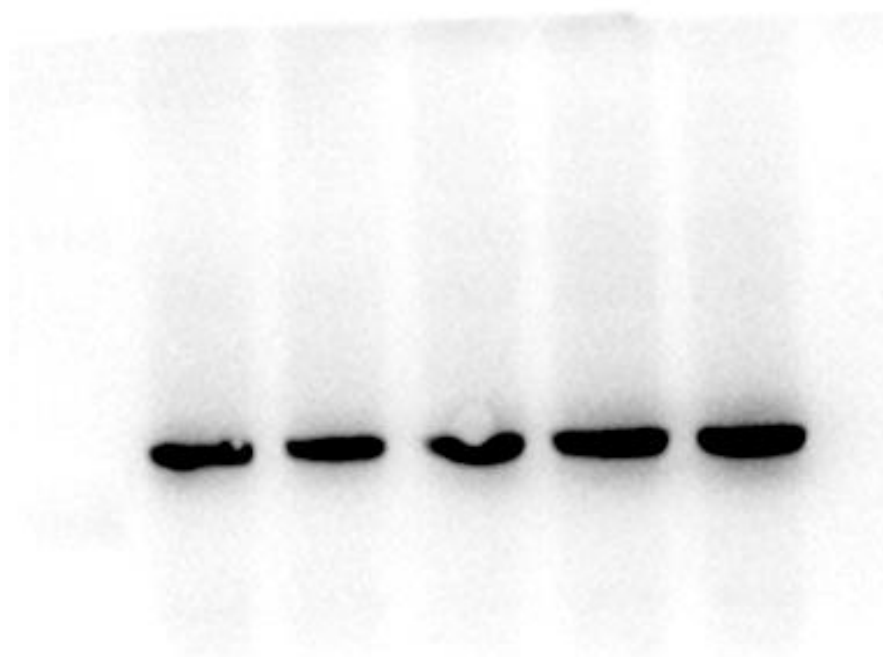
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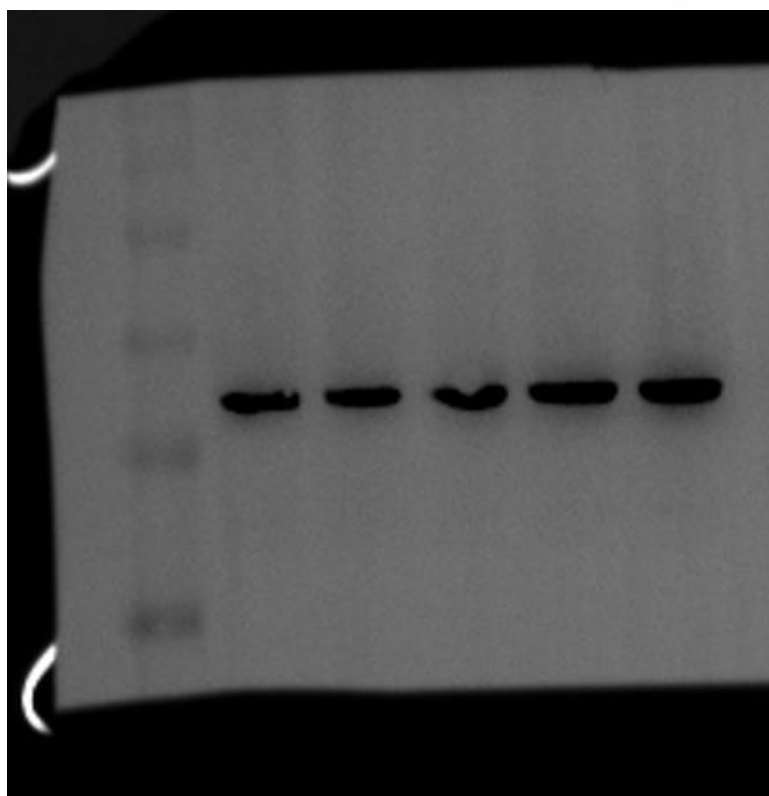
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β -actin

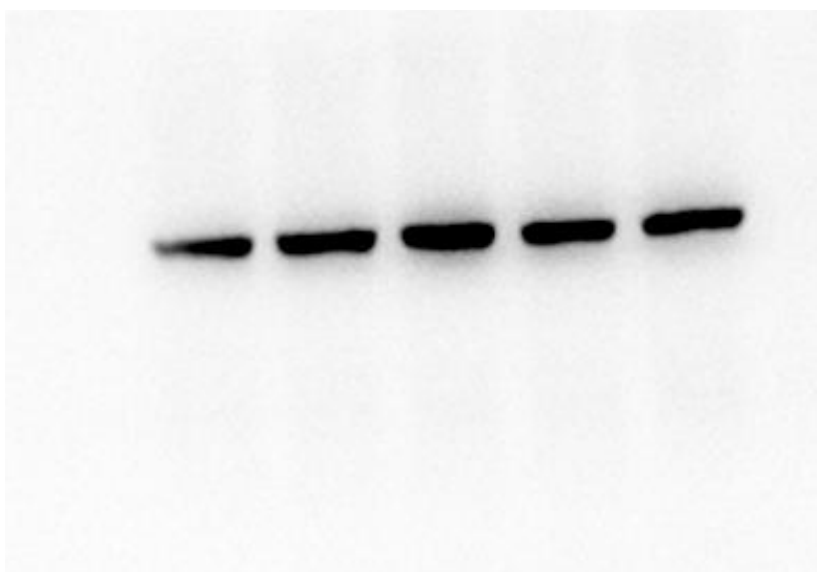
CON HFD HFD+ZEA HFD+Flu HFD+ZEA+Flu



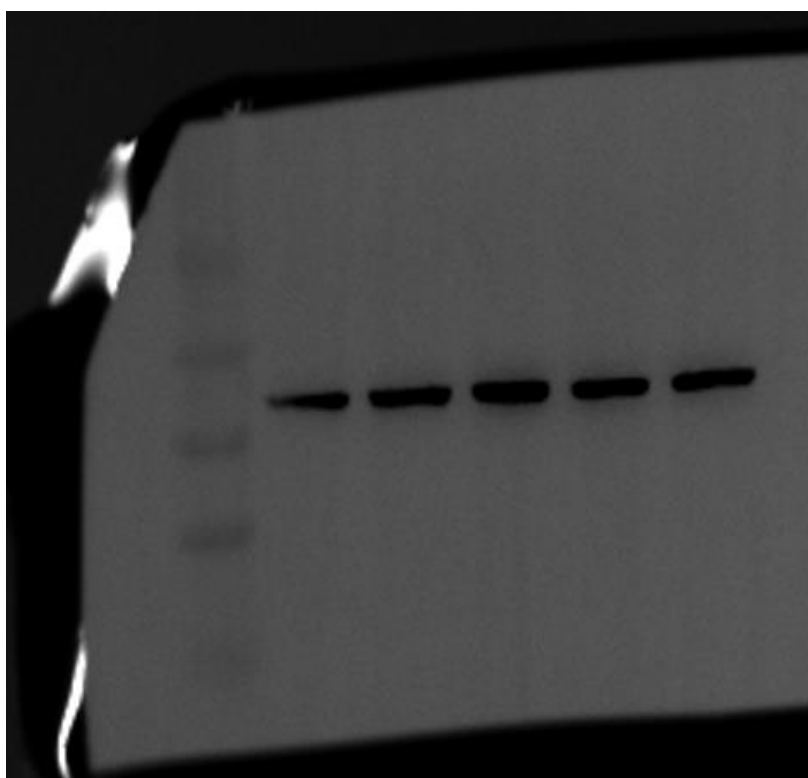
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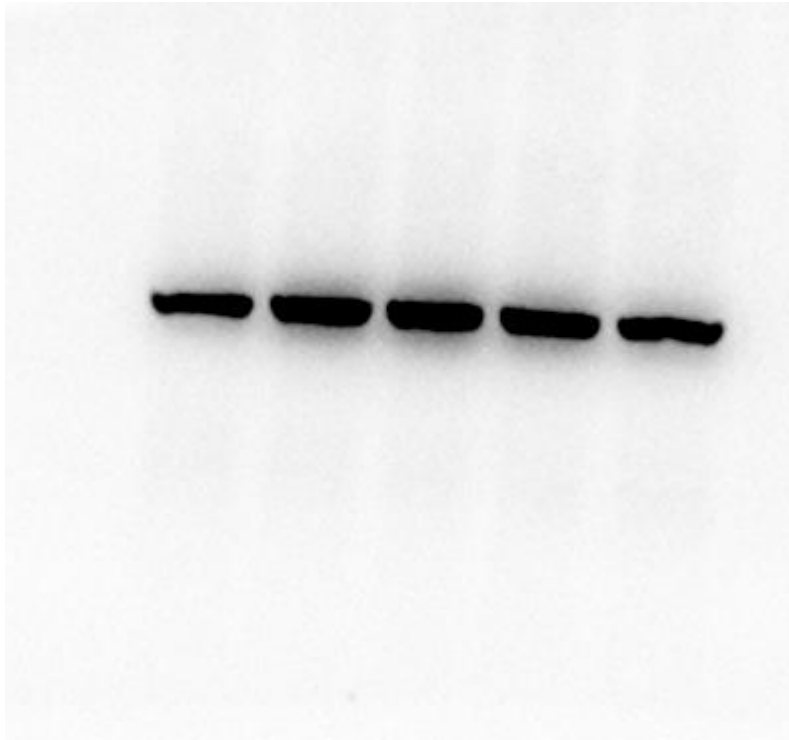
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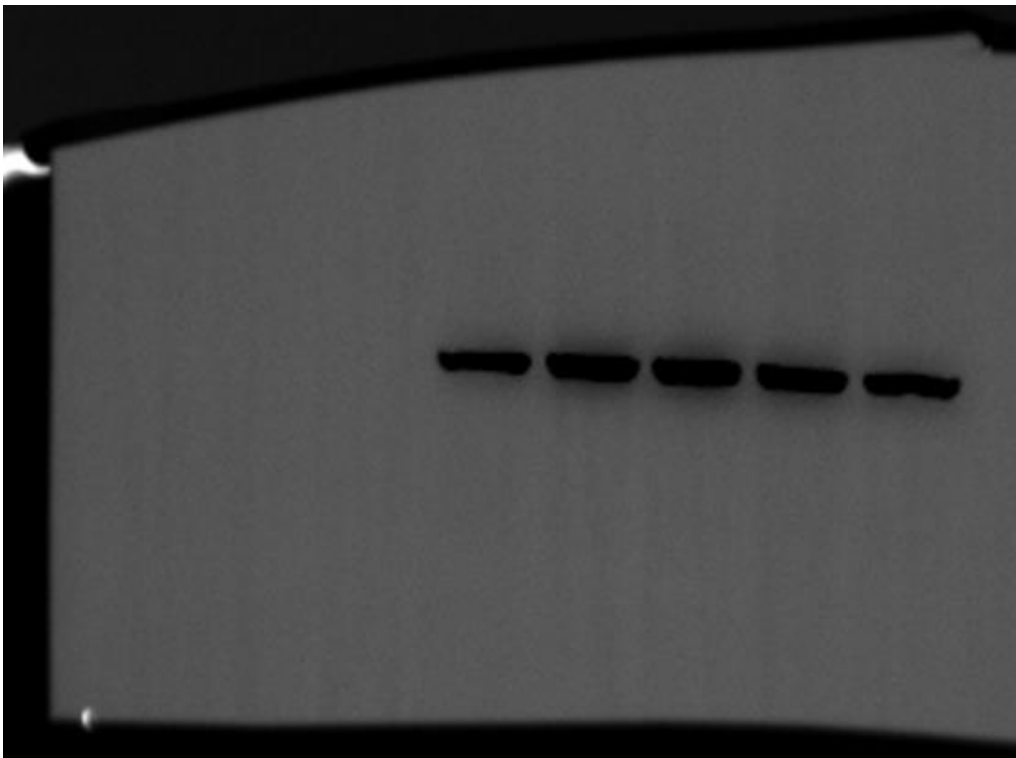
42kDa



42kDa



42kDa



42kDa