
Supplementary information

Metabolic regulation of gene expression by histone lactylation

In the format provided by the authors and unedited

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Supplementary Figure 1– Original blots

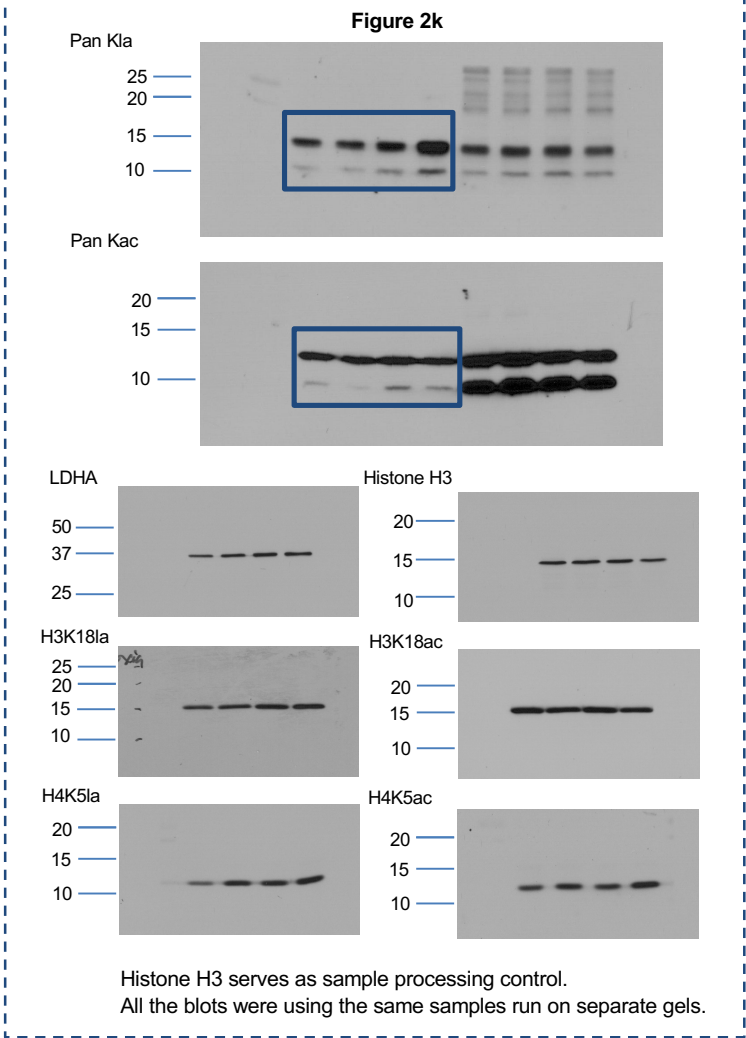
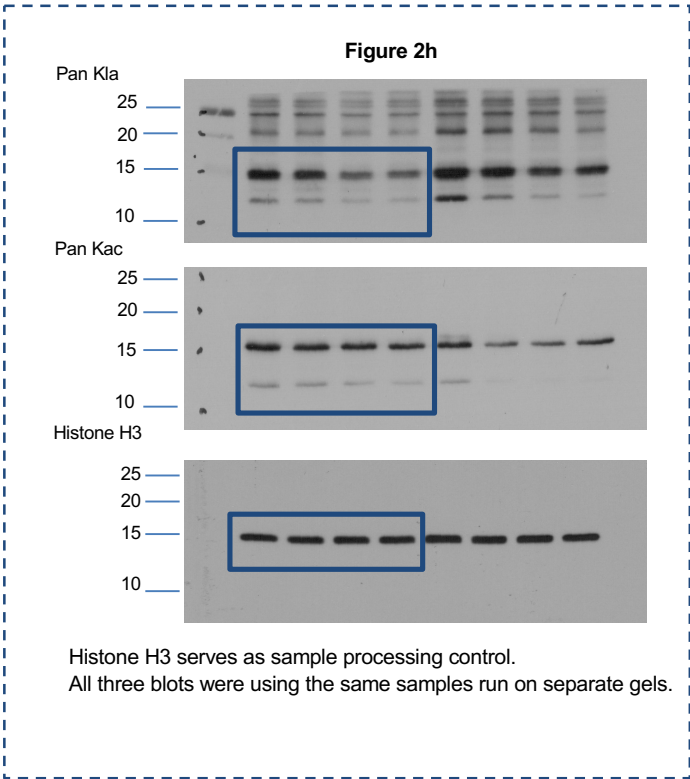
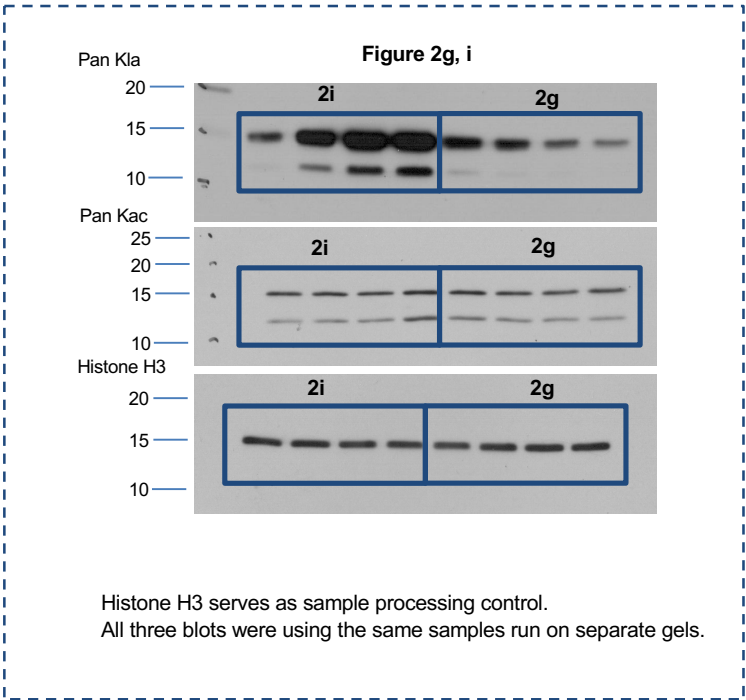
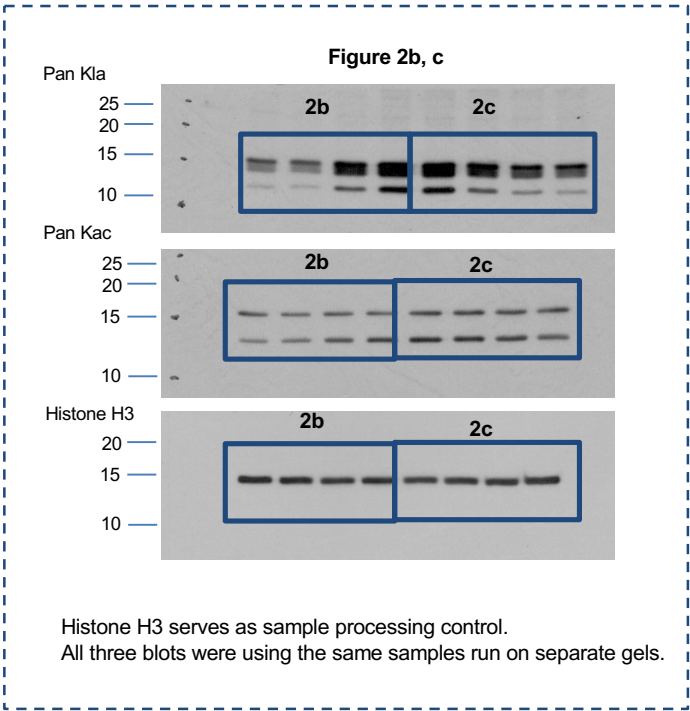
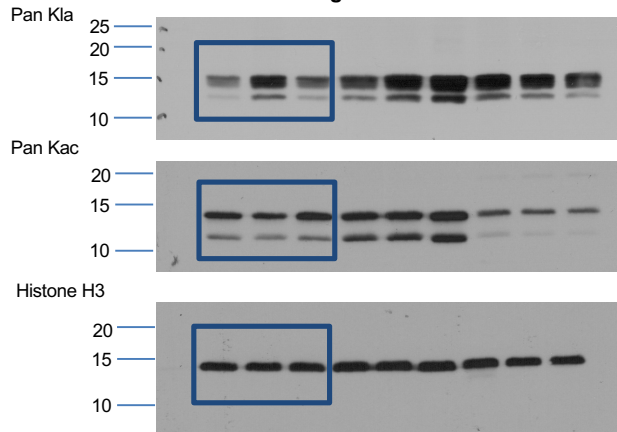
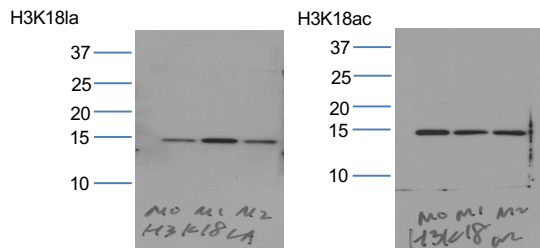


Figure 3d

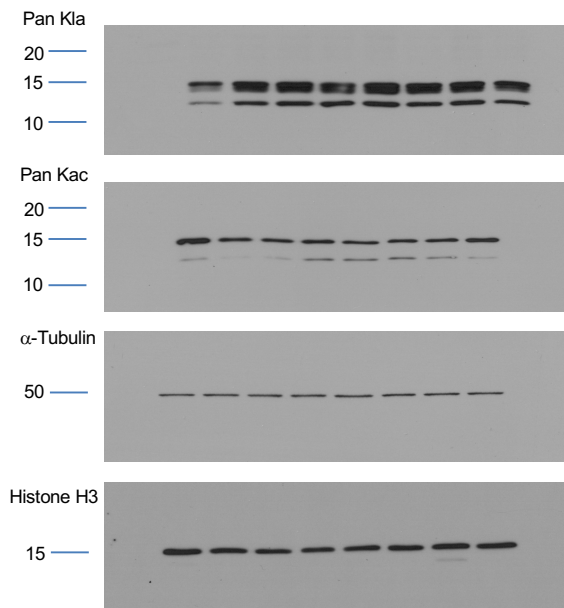


The membrane was blotted against pan Kac, and then stripped and was reblotted against histone H3 .



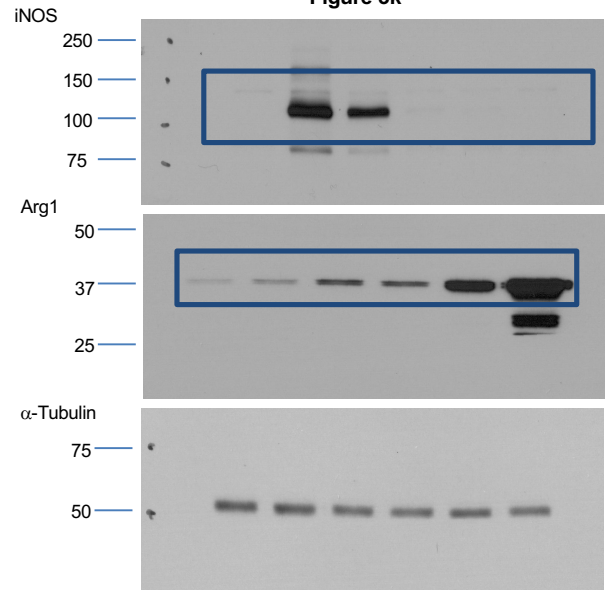
Histone H3 serves as sample processing control.
All the blots were using the same samples.

Figure 3i



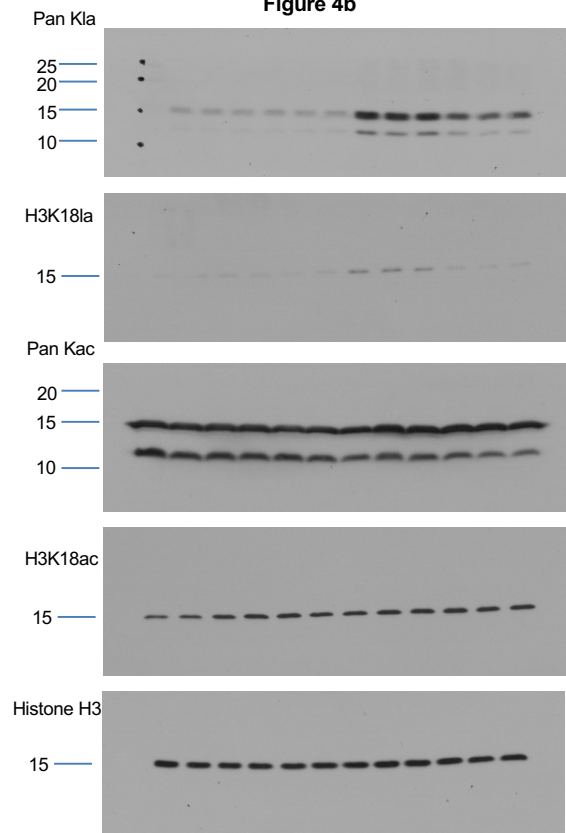
Histone H3 and α-Tubulin serve as sample processing controls.
All the blots were using the same samples run on separate gels.

Figure 3k



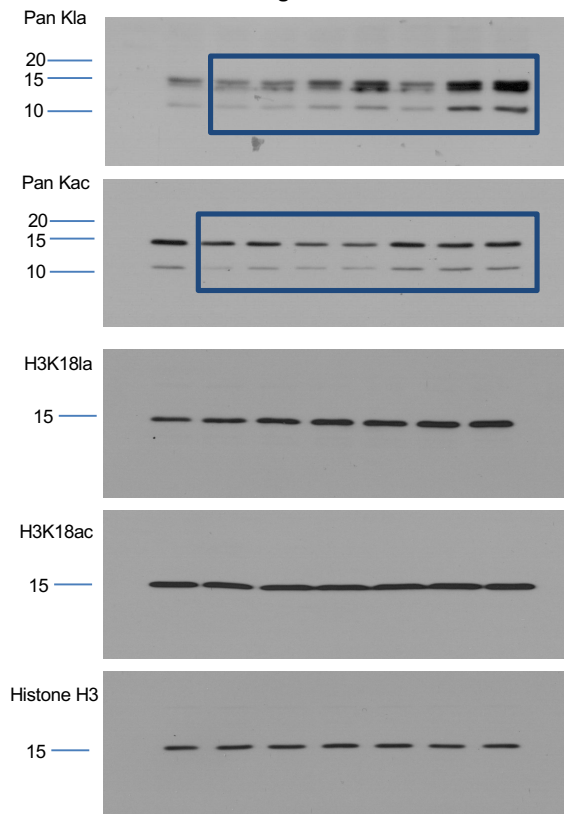
α-Tubulin serves as sample processing control.
All the blots were using the same samples run on separate gels.

Figure 4b



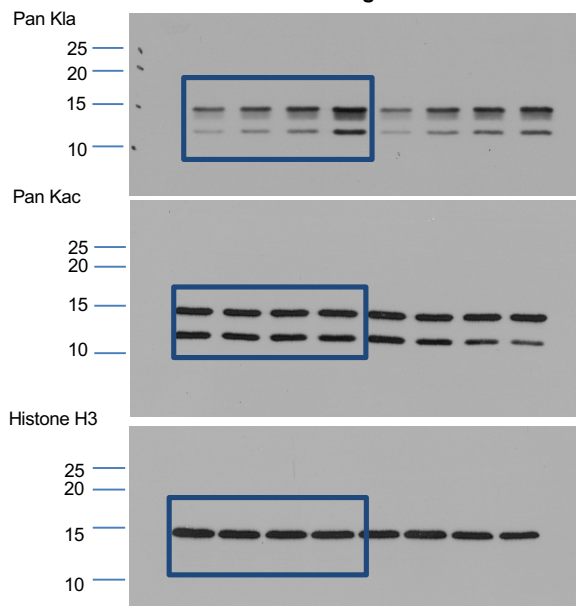
Histone H3 serves as sample processing control.
All the blots were using the same samples run on separate gels.

Figure 4f



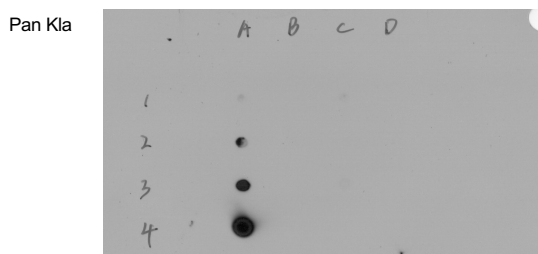
Histone H3 serves as sample processing control.
All the blots were using the same samples run on separate gels.

Extended Data Figure 1h

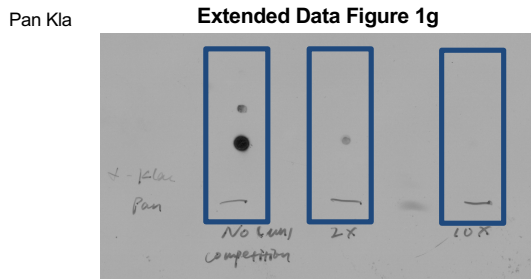


Histone H3 serves as sample processing control .
All three blots were using the same samples run on separate gels.

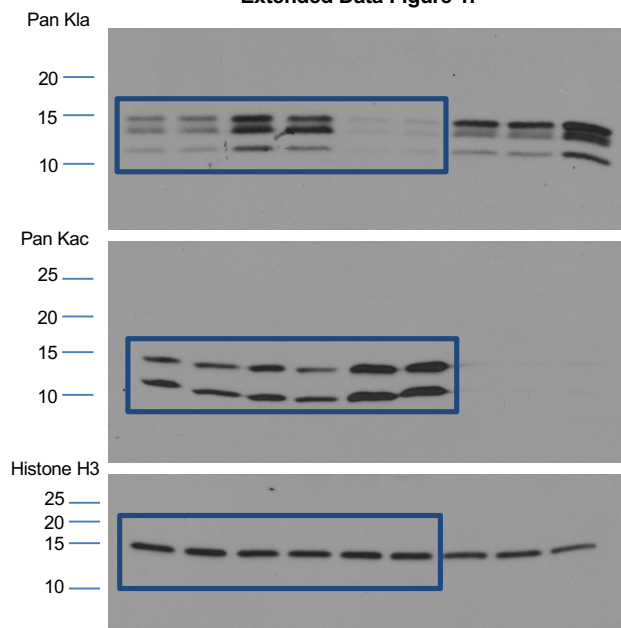
Extended Data Figure 1f



Extended Data Figure 1g

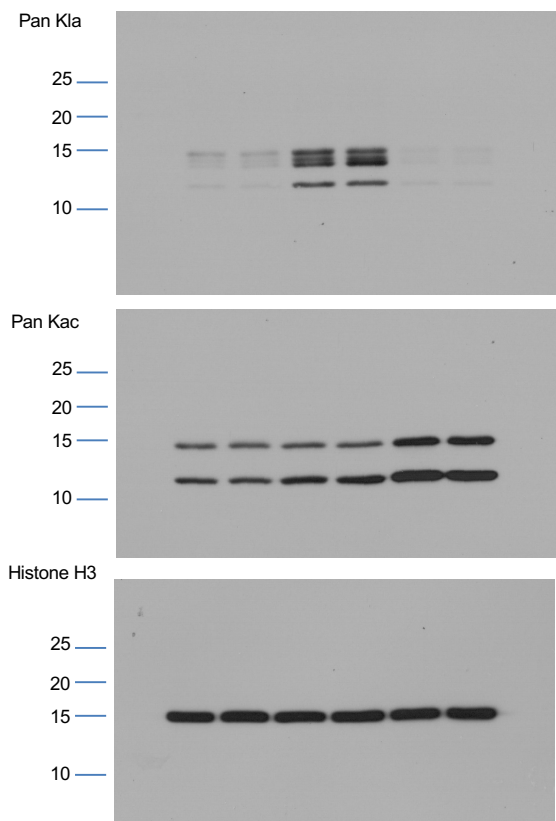


Extended Data Figure 1i



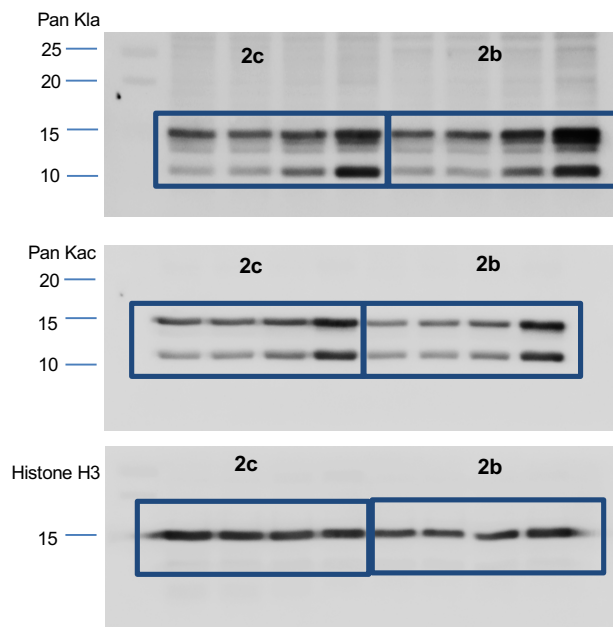
Histone H3 serves as sample processing control.
All the blots were using the same samples run on separate gels.

Extended Data Figure 1j



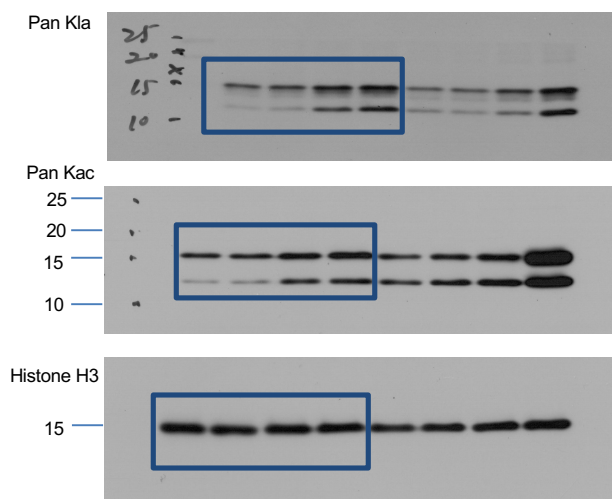
Histone H3 serves as sample processing control.
All the blots were using the same samples run on separate gels.

Extended Data Figure 2b, c



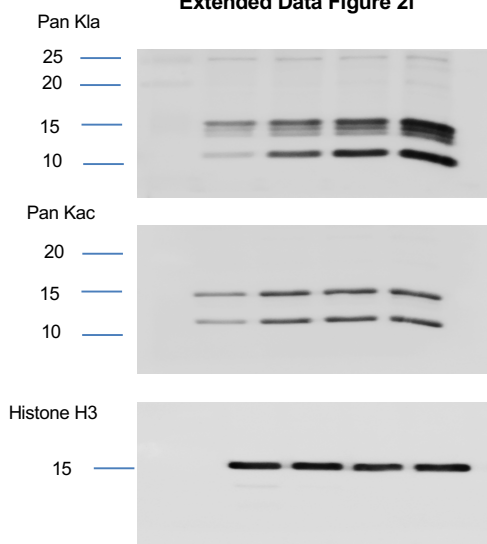
Histone H3 serves as sample processing control.
All the blots were using the same samples run on separate gels.

Extended Data Figure 2a



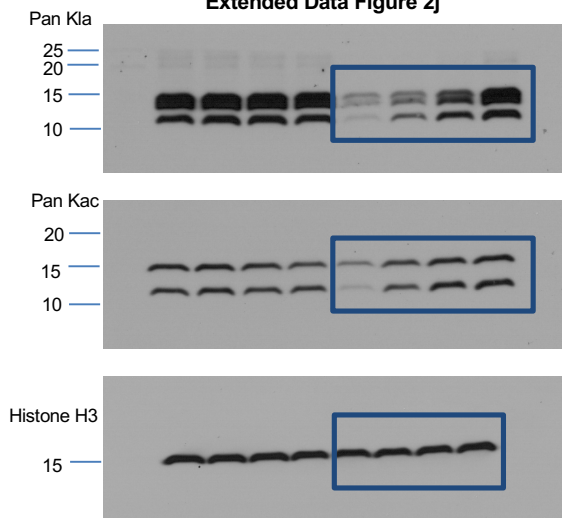
Histone H3 serves as sample processing control.
All the blots were using the same samples run on separate gels.

Extended Data Figure 2i



Histone H3 serves as sample processing control.
All the blots were using the same samples run on separate gels.

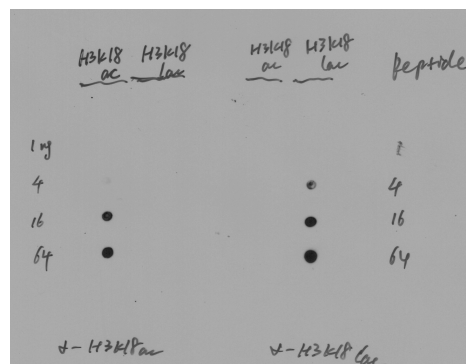
Extended Data Figure 2j



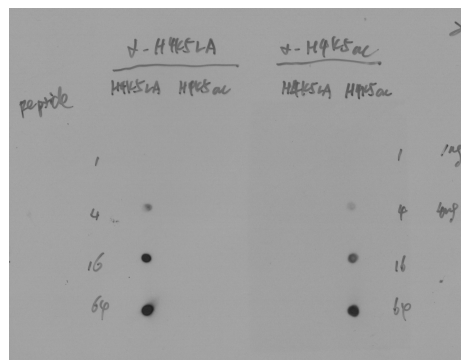
The membrane was blotted against pan Kac, and then stripped and was reblotted against histone H3.

Histone H3 serves as sample processing control. All the blots were using the same samples.

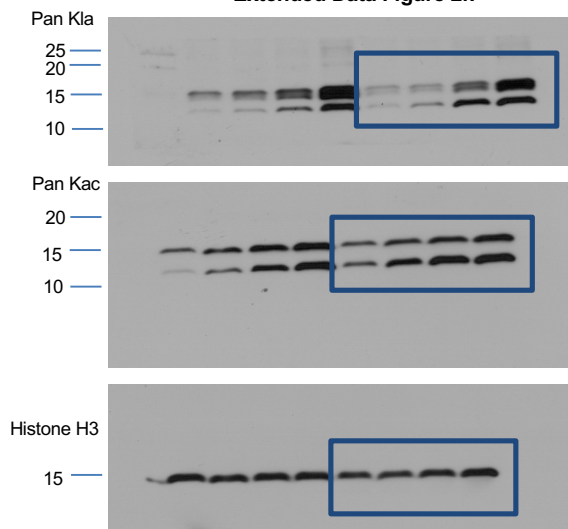
Extended Data Figure 3b



Extended Data Figure 3d



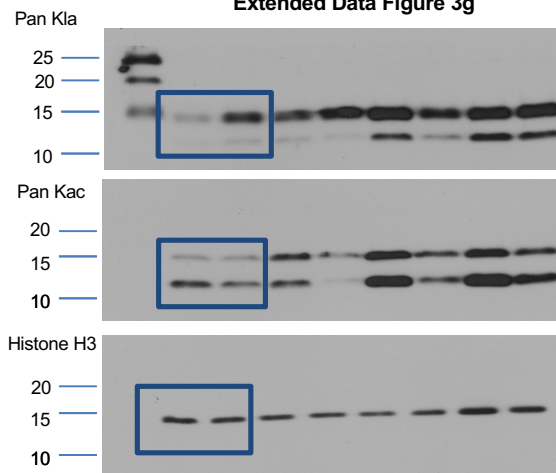
Extended Data Figure 2k



The membrane was blotted against pan Kac, and then stripped and was reblotted against histone H3.

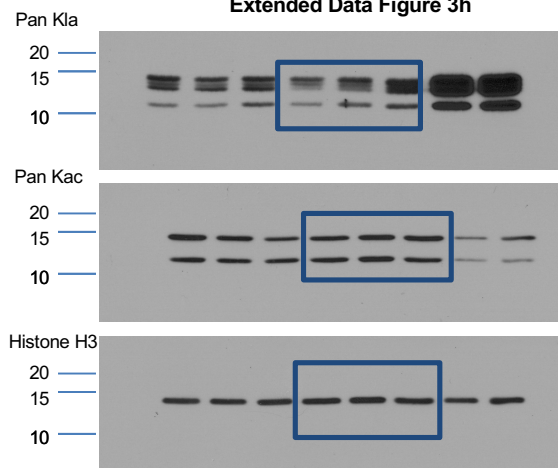
Histone H3 serves as sample processing control. All the blots were using the same samples.

Extended Data Figure 3g



Histone H3 serves as sample processing control. All the blots were using the same samples run on separate gels.

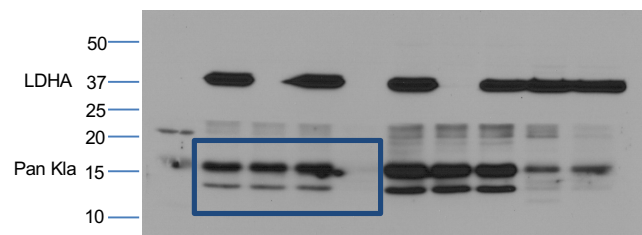
Extended Data Figure 3h



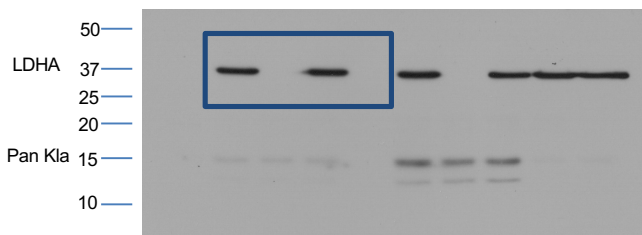
The membrane was blotted against pan Kac, and then stripped and was reblotted against histone H3.

Histone H3 serves as sample processing control.
All the blots were using the same samples.

Extended Data Figure 3i



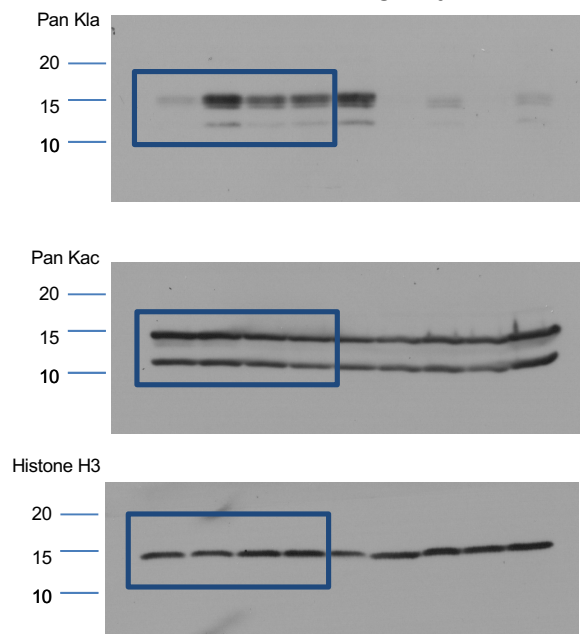
Long exposure



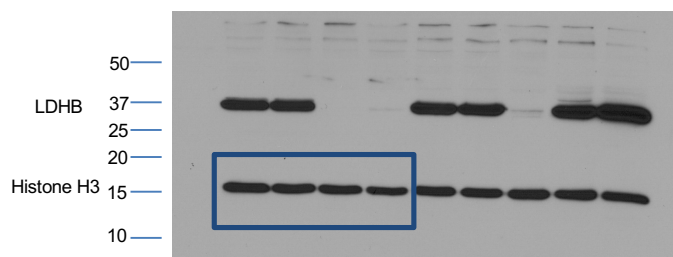
Short exposure

Membrane was cut, upper membrane was incubated with anti-LDHA antibody, and bottom membrane was incubated with pan anti-Kla antibody

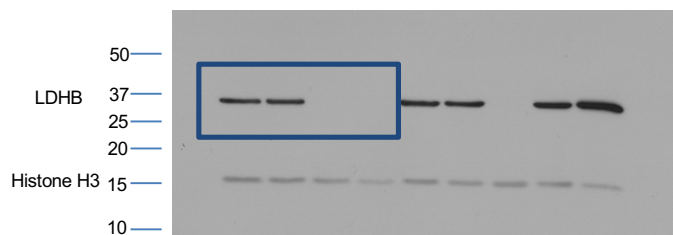
Extended Data Figure 3j



Histone H3 serves as sample processing control.
All the blots were using the same samples run on separate gels.

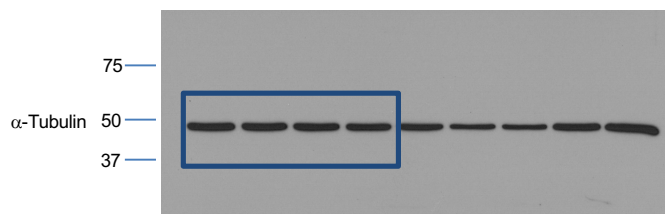


Long exposure



Short exposure

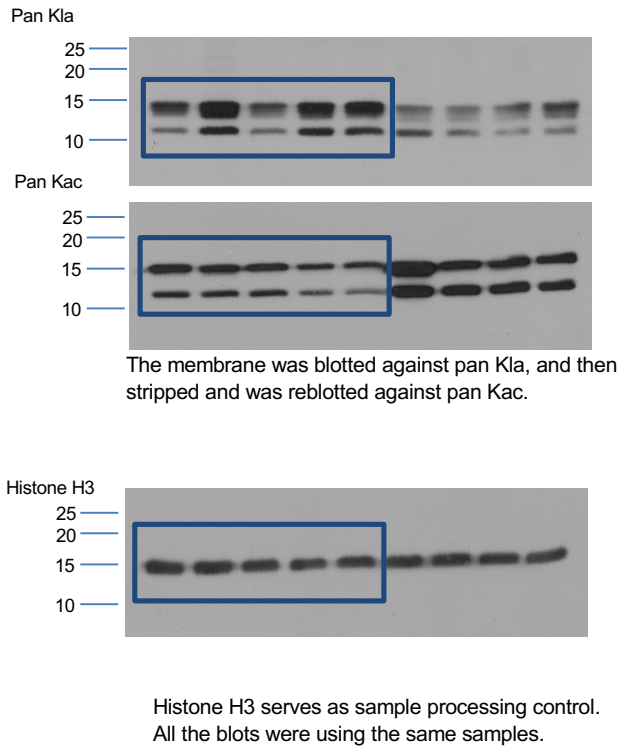
Membrane was cut, upper membrane was incubated with anti-LDHB antibody, and bottom membrane was incubated with histone H3 antibody.



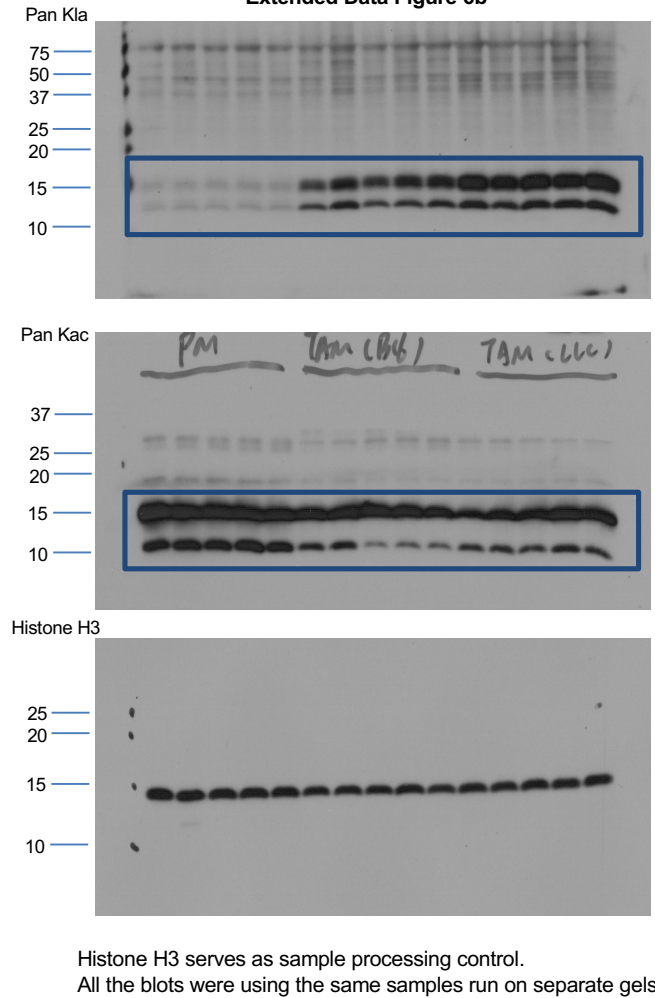
The membrane was blotted against LDHB, and then stripped and was reblotted against α -tubulin.

H3 and α -Tubulin serve as sample processing controls.
All the blots were using the same samples.

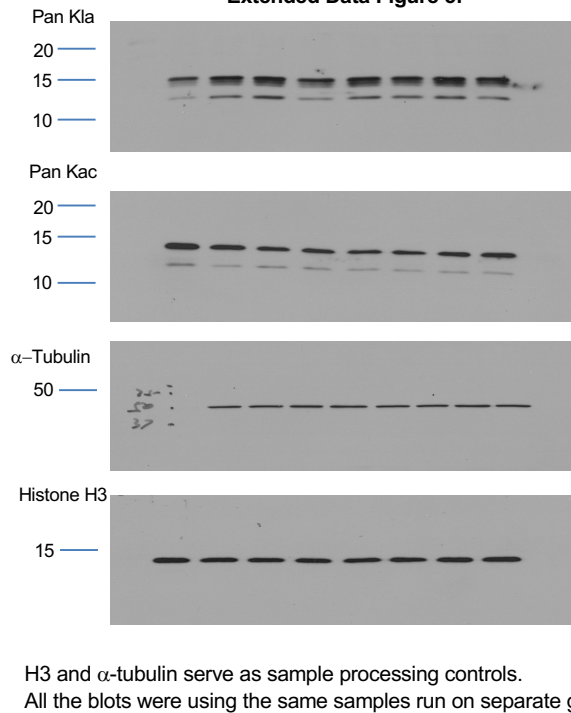
Extended Data Figure 4g



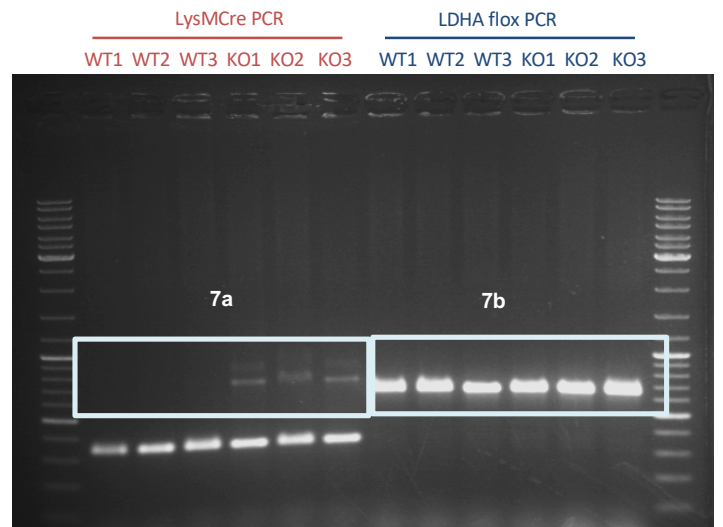
Extended Data Figure 6b



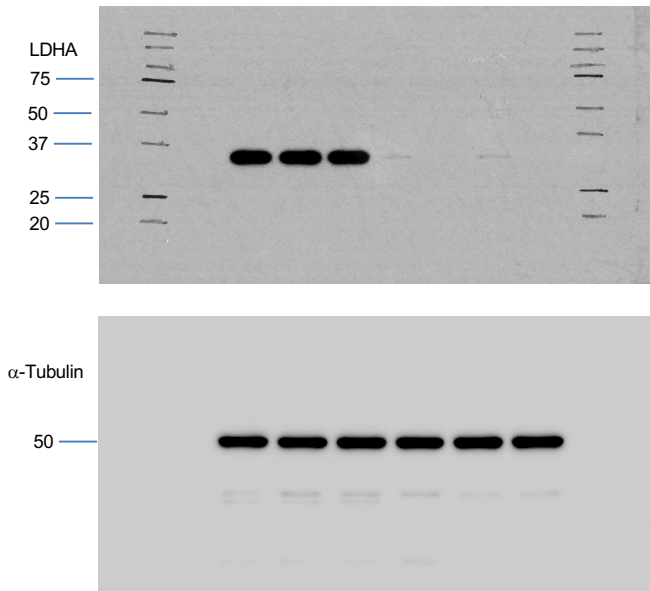
Extended Data Figure 5f



Extended Data Figure 7a, b

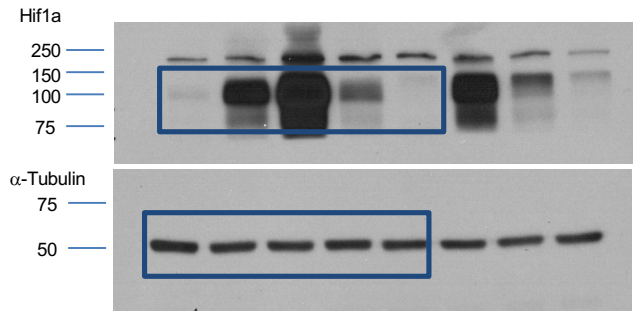


Extended Data Figure 7c



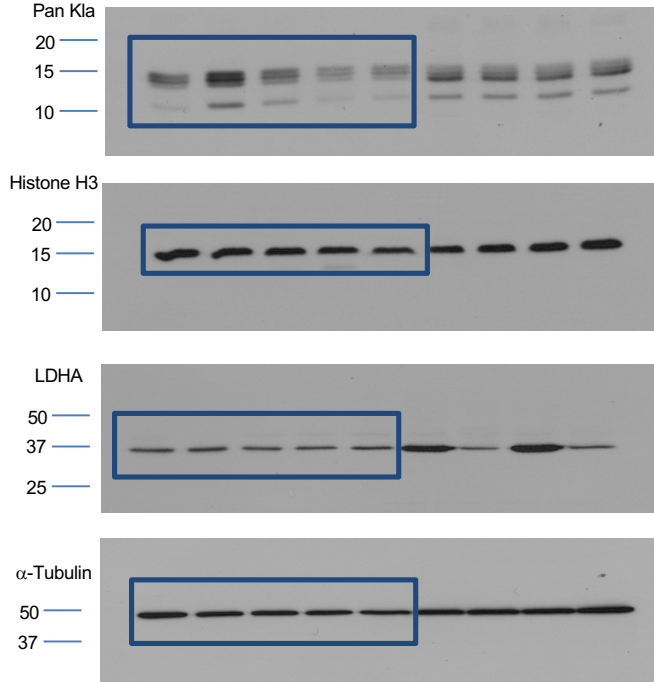
α-tubulin serve as sample processing control.
All the blots were using the same samples run on separate gels.

Extended Data Figure 8i



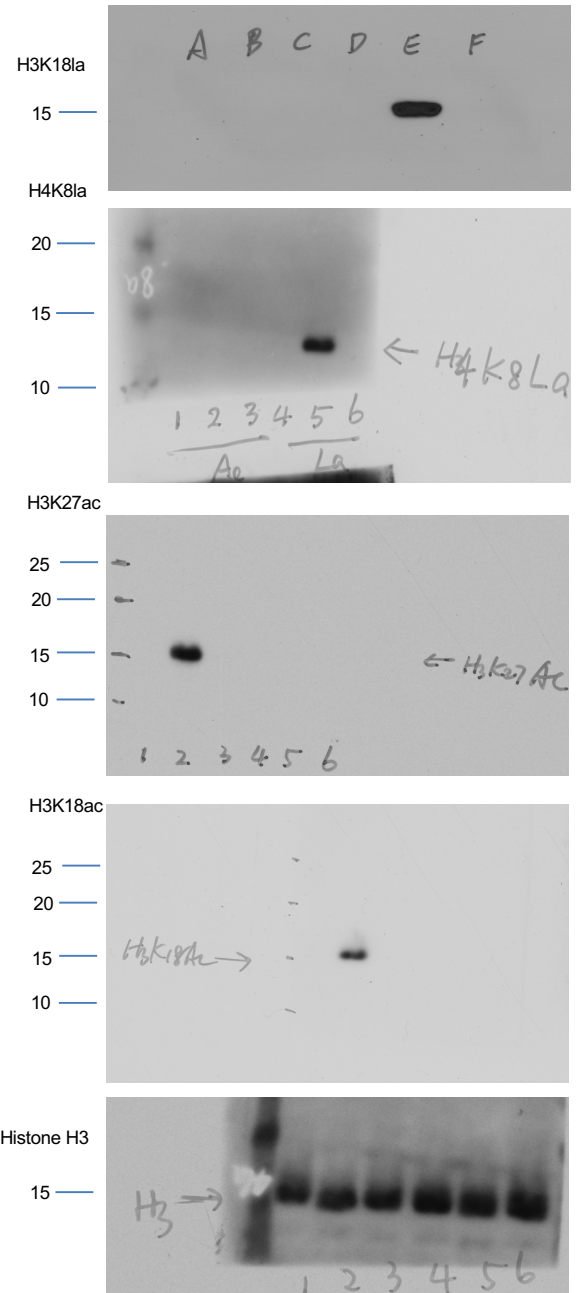
α-tubulin serve as sample processing control.
All the blots were using the same samples run on separate gels.

Extended Data Figure 7i



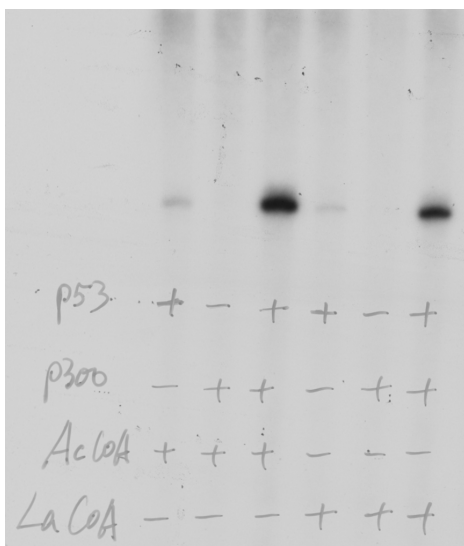
H3 and α-tubulin serve as sample processing controls.
All the blots were using the same samples run on separate gels.

Extended Data Figure 9b

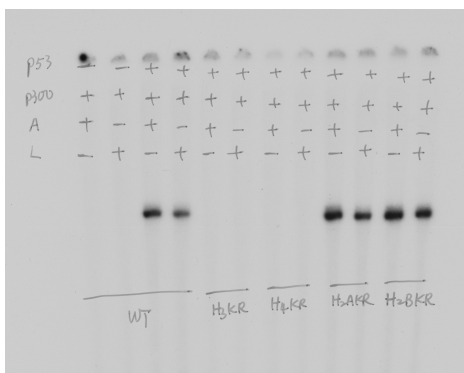


Histone H3 serves as sample processing control.
All the blots were using the same samples run on separate gels.

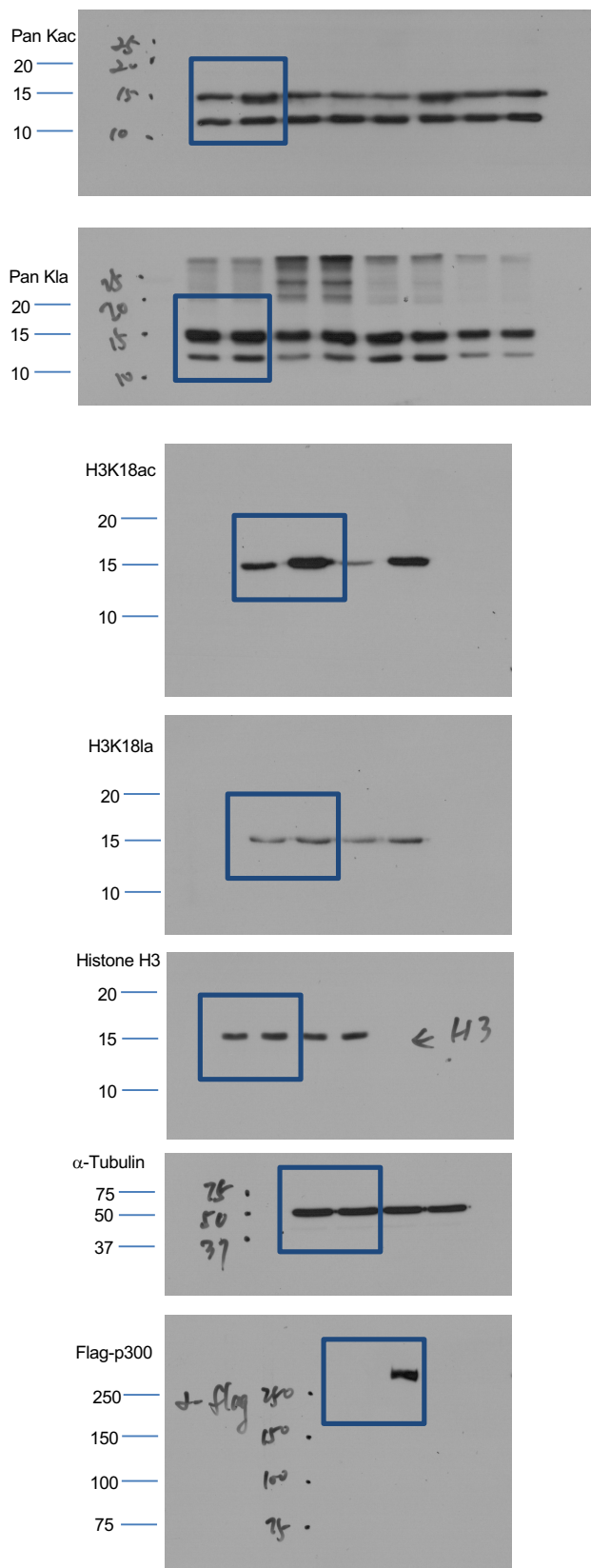
Extended Data Figure 9c



Extended Data Figure 9d

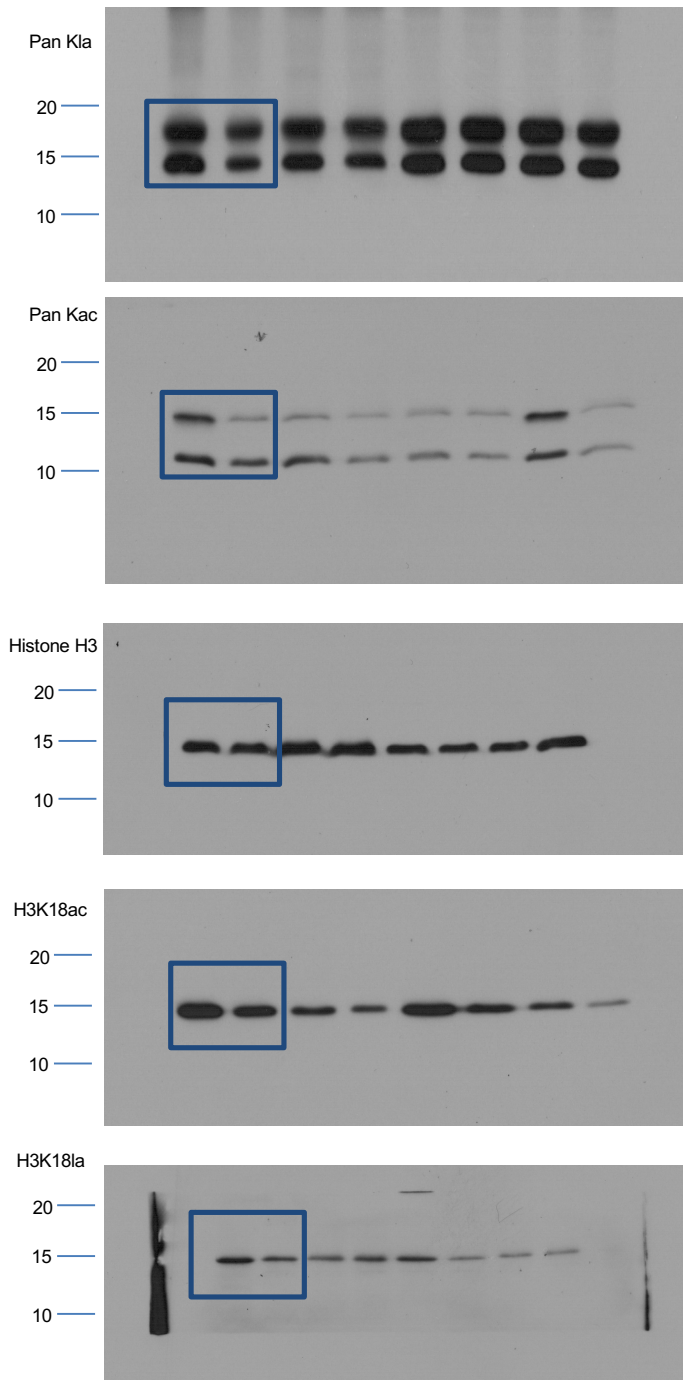


Extended Data Figure 9e



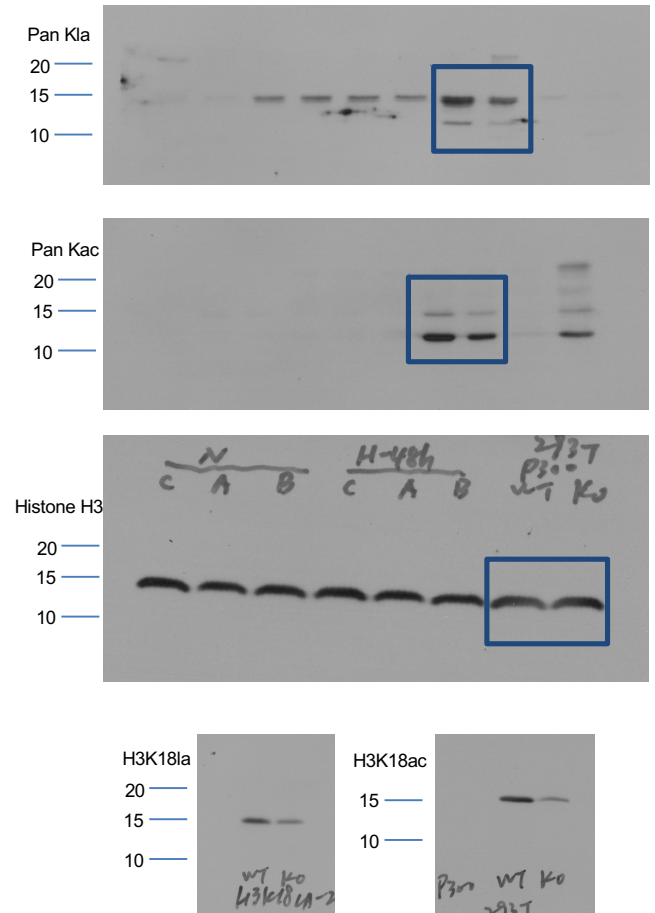
H3 and α-tubulin serve as sample processing controls.
All the blots were using the same samples run on separate gels.

Extended Data Figure 9f



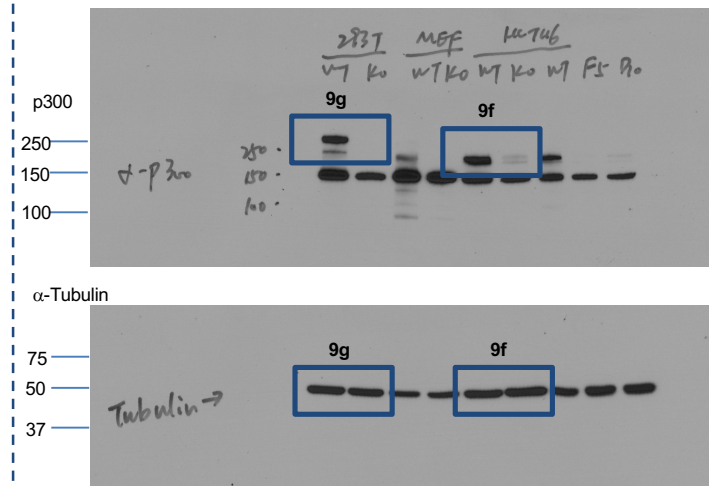
H3 serves as sample processing control.
All the blots were using the same samples run on separate gels.

Extended Data Figure 9g



H3 serves as sample processing control.
All the blots were using the same samples run on separate gels.

Extended Data Figure 9f & g



α-tubulin serve as loading control.
Membrane was cut, upper membrane was incubated with p300 antibody, and bottom membrane was incubated with α-tubulin antibody.
P300 in HEK 293T cells is wildtype, with molecular weight 300kDa; P300 in HCT116 cells is a truncated form, with molecular weight 200kDa