

Figure S3 B

qRT-PCR (A) and western blot (B) detection evaluating the efficiency of over-expressed RBM8A(W73V) in MHCC97H cells (above) and Bel7404 cells (below). Data are representative of three similar observations or are shown as means $\pm$ SD of three experiments.

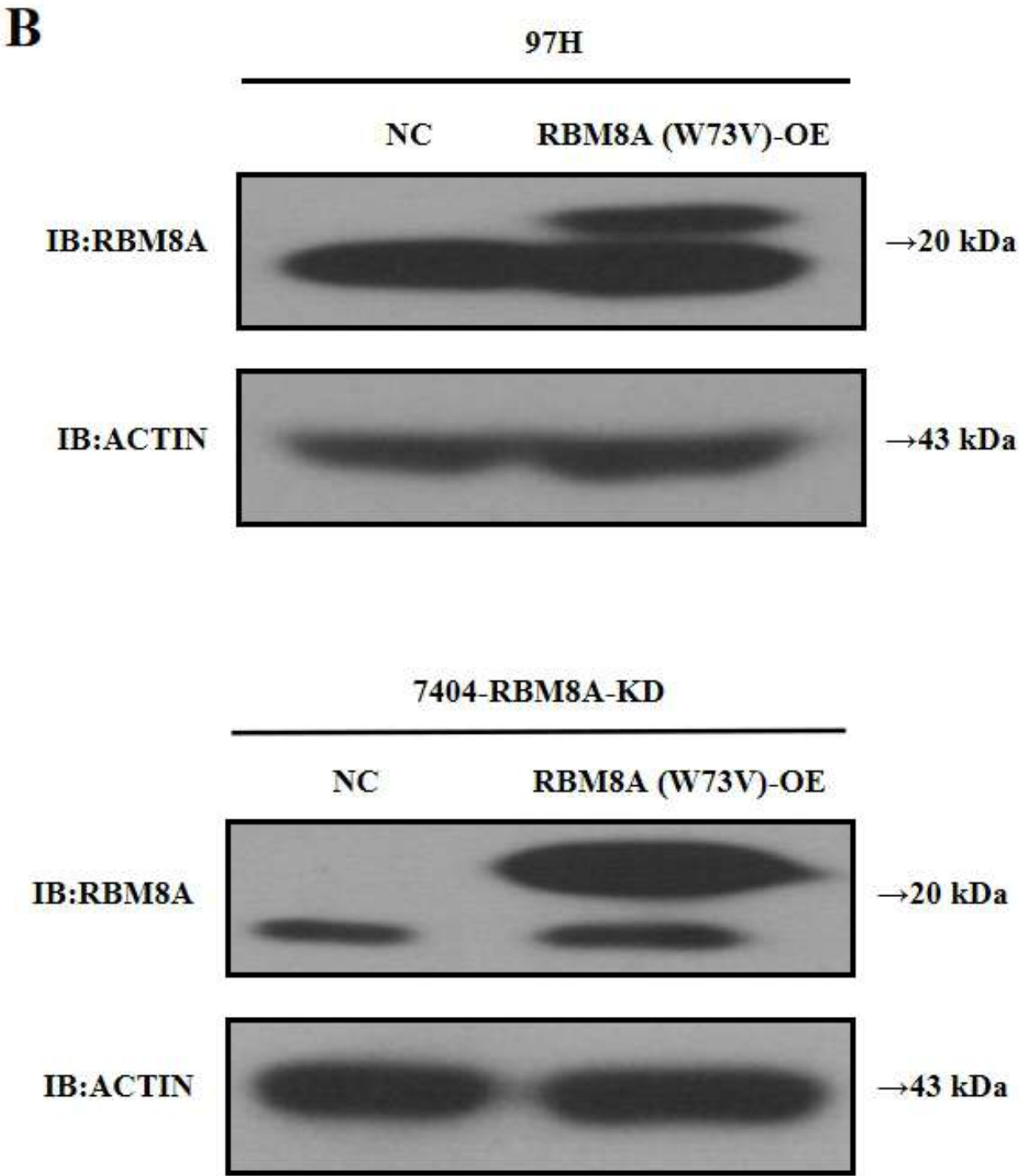


Figure S3 B

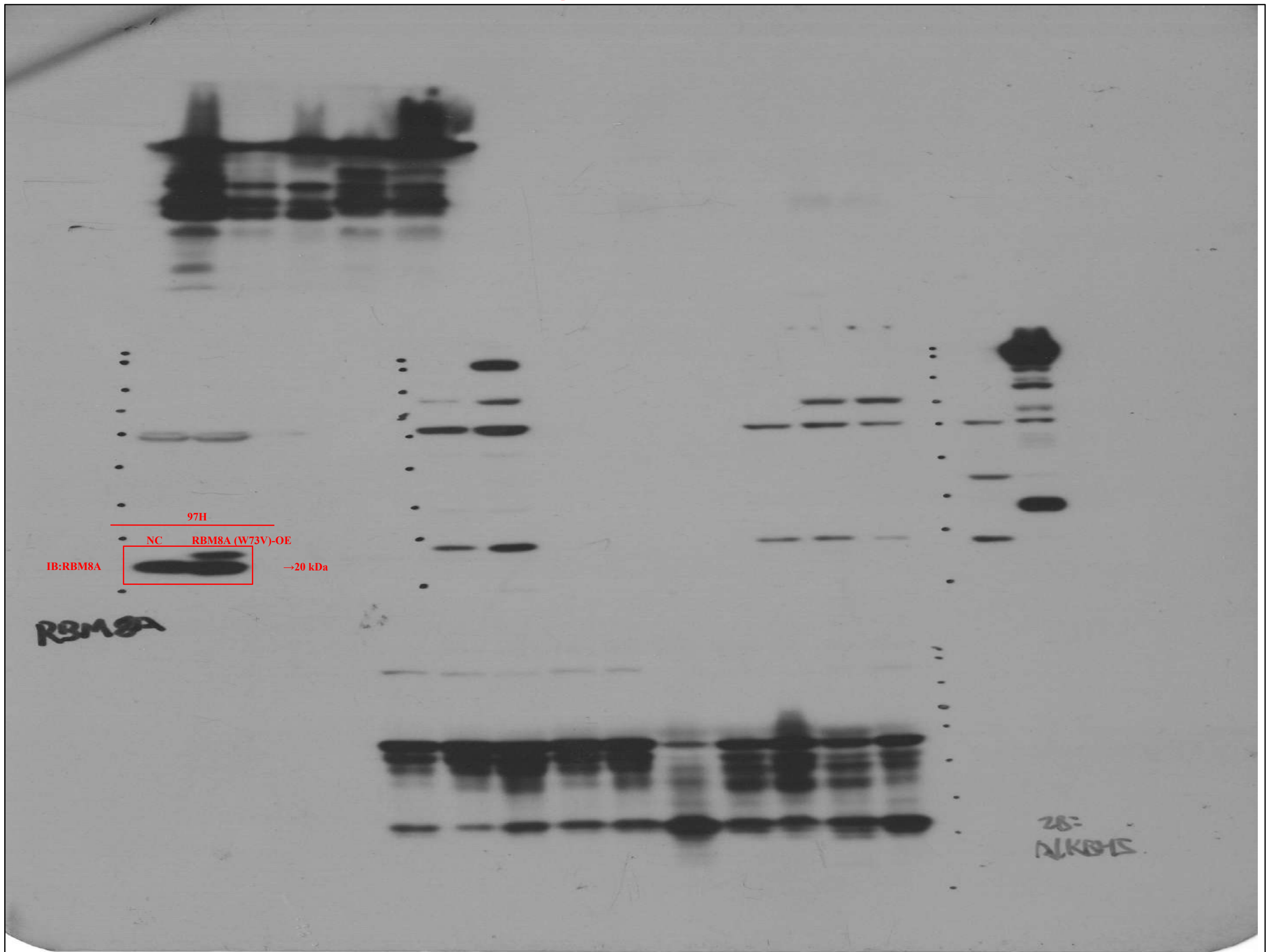


Figure S3 B

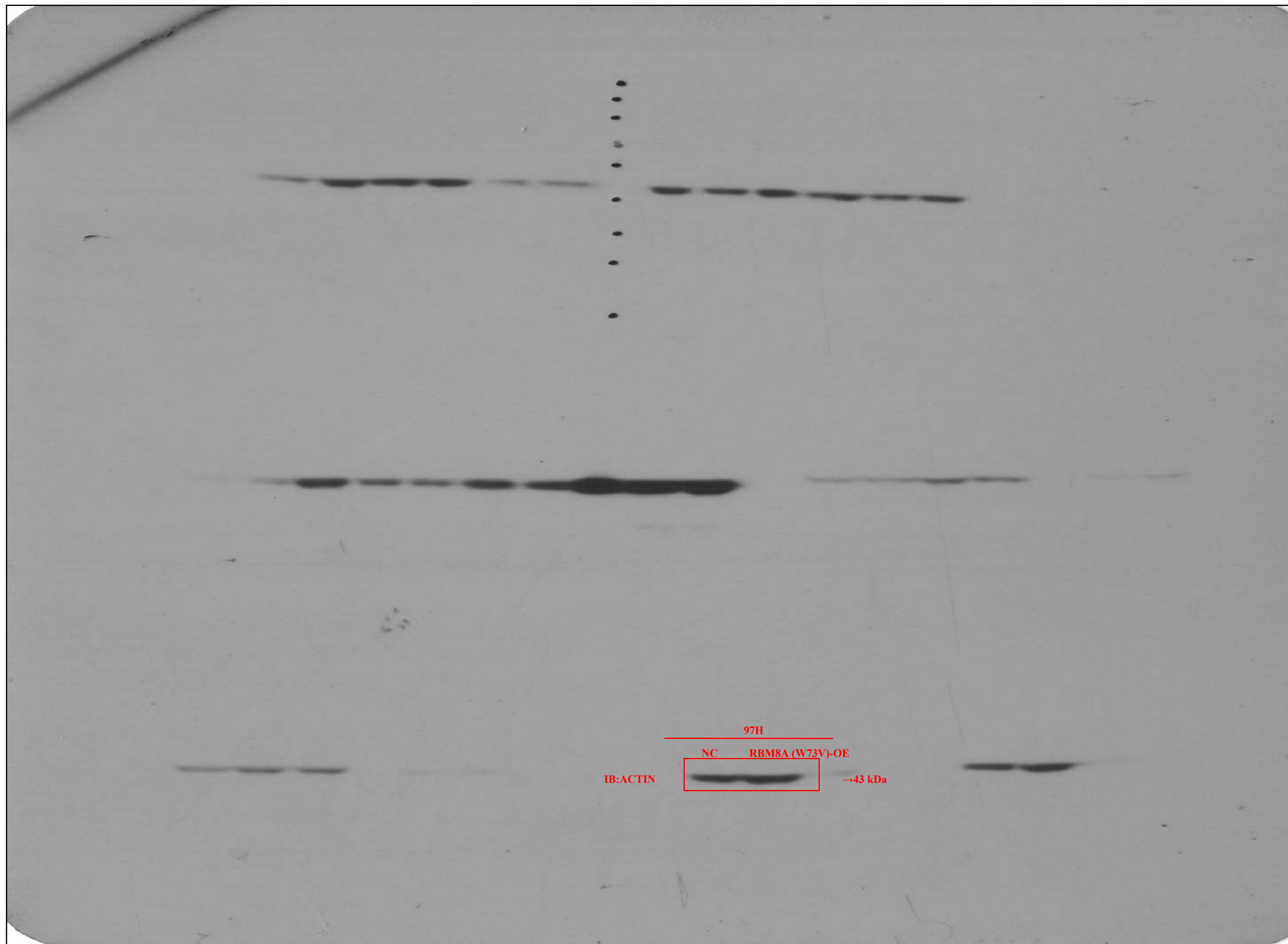


Figure S3 B

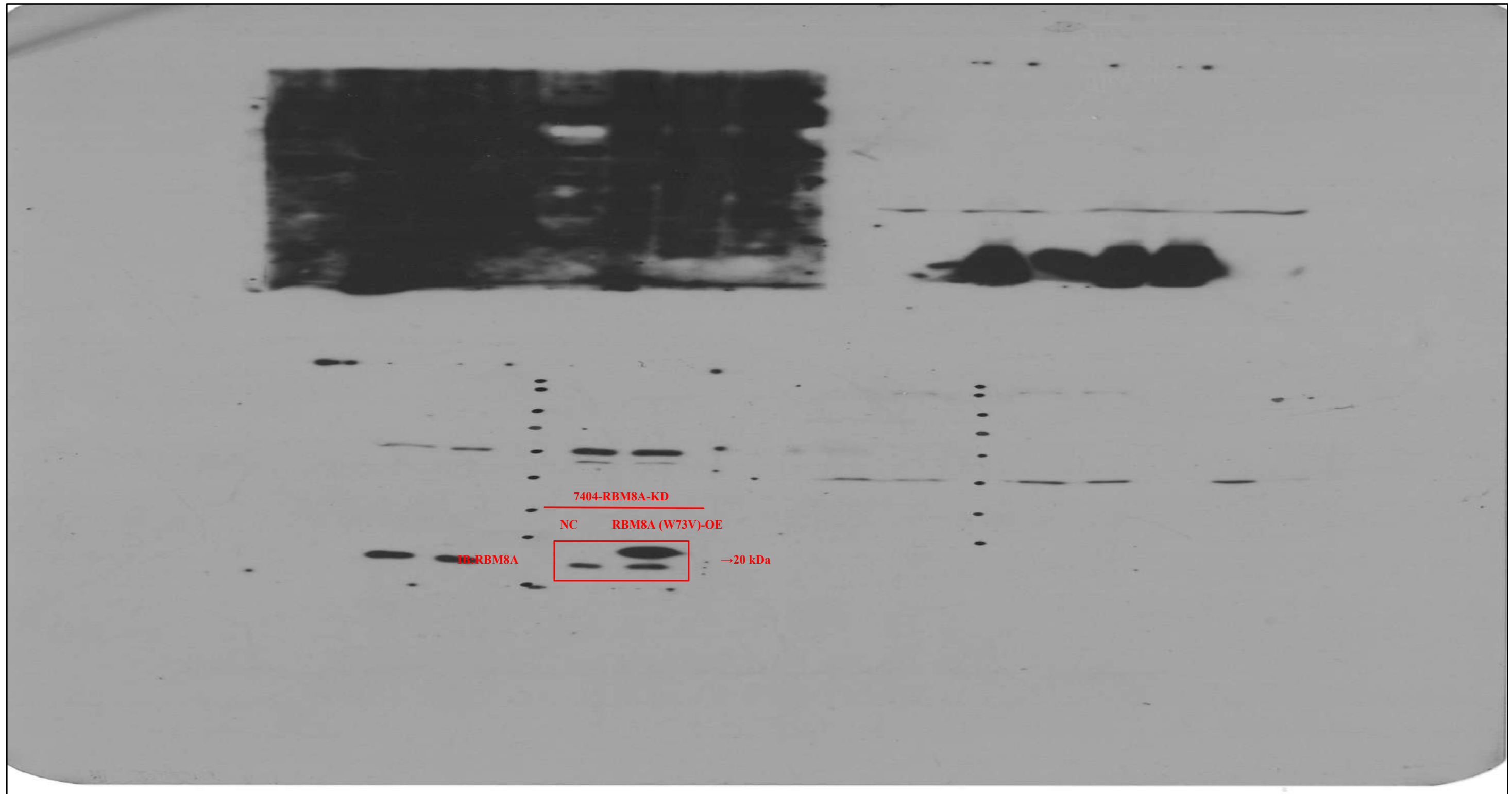


Figure S3 B

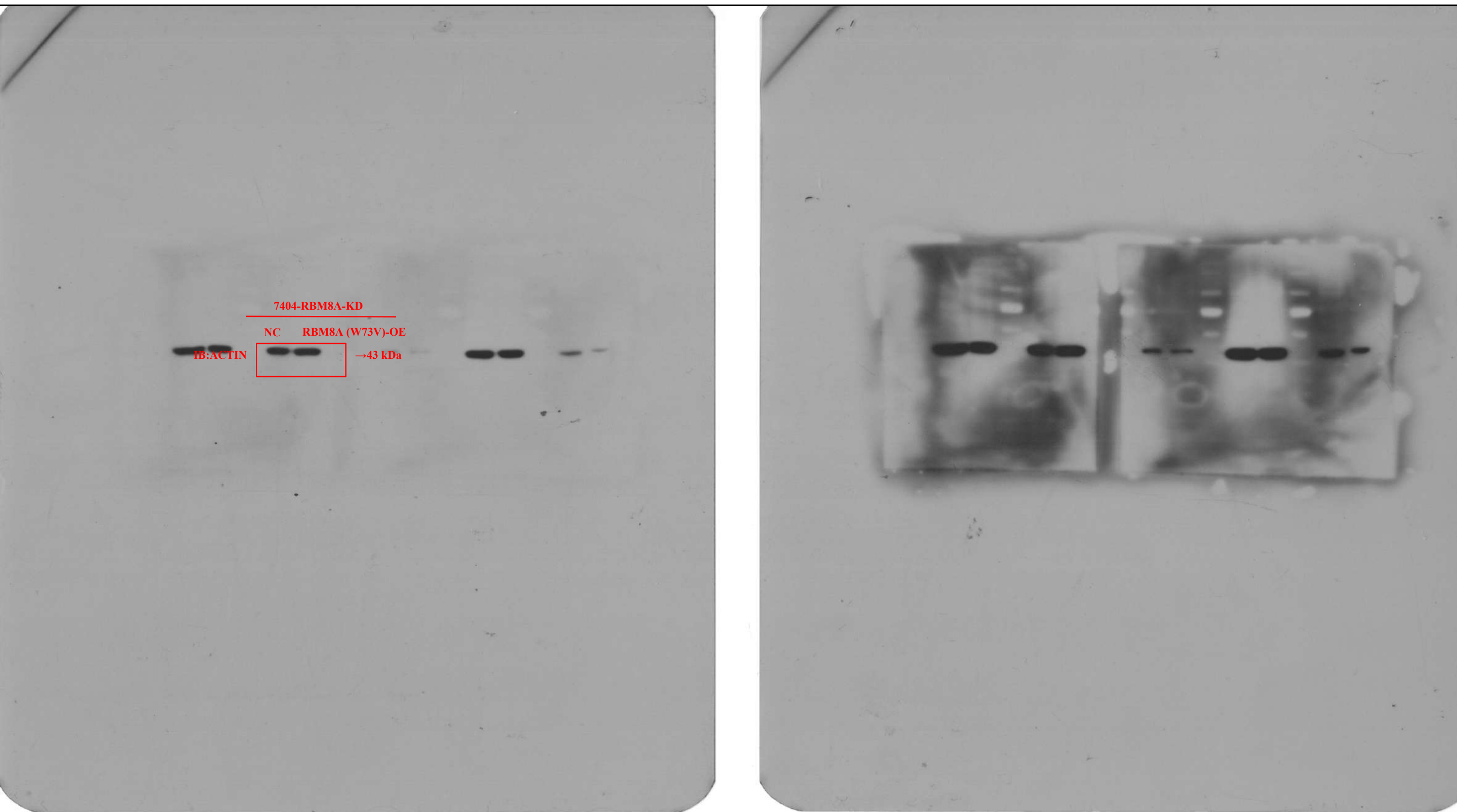


Figure 4 C

Western blot assay detecting expressions of RBM8A and HDAC9 in normal liver cell line (L02) and HCC cell lines (Hep3B, HepG2, MHCC97H, SMMC-7721, Bel7404, and PLC/PRF/5). Data are representative of three similar observations or are presented as mean $\pm$ SD from three independent experiments.

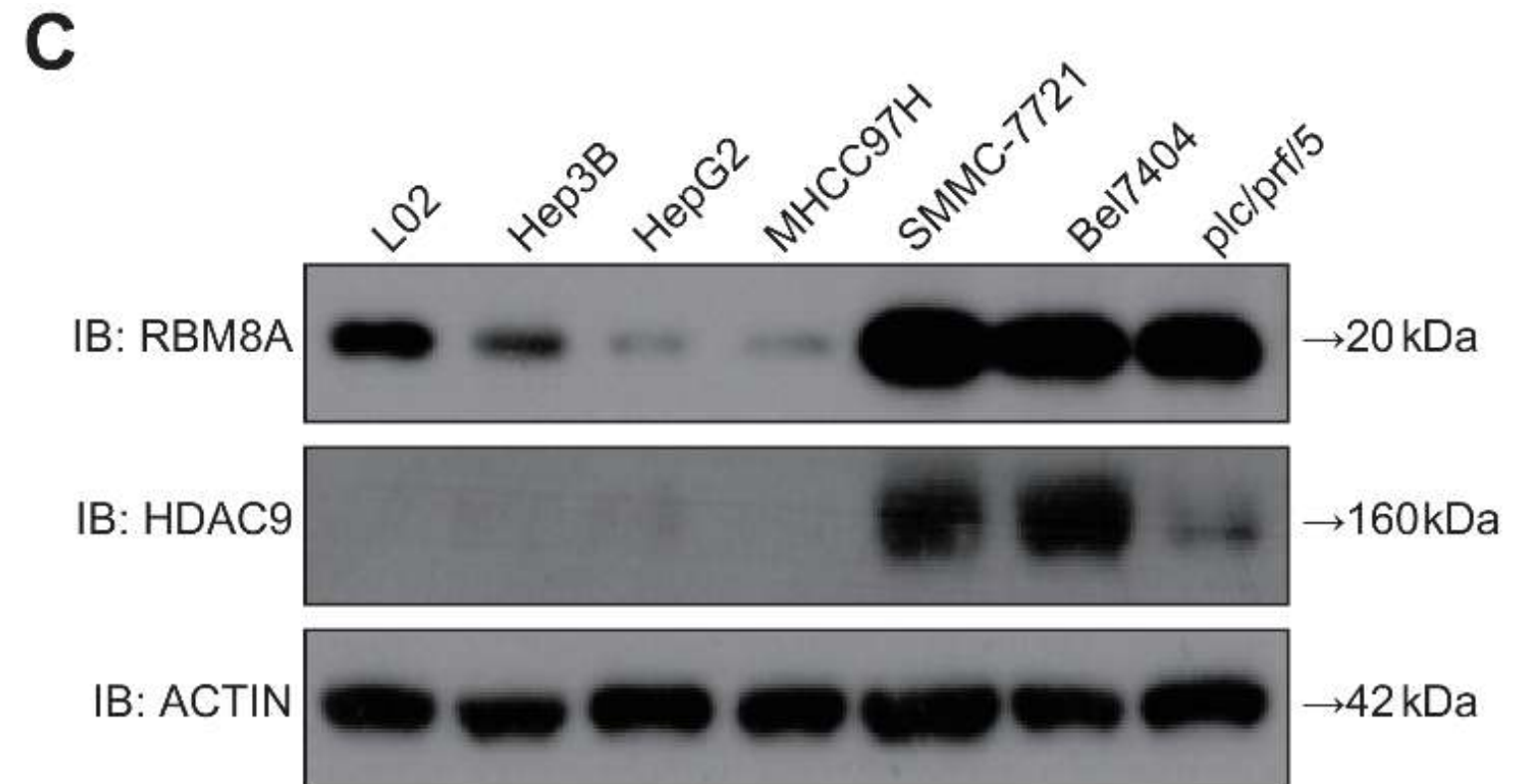
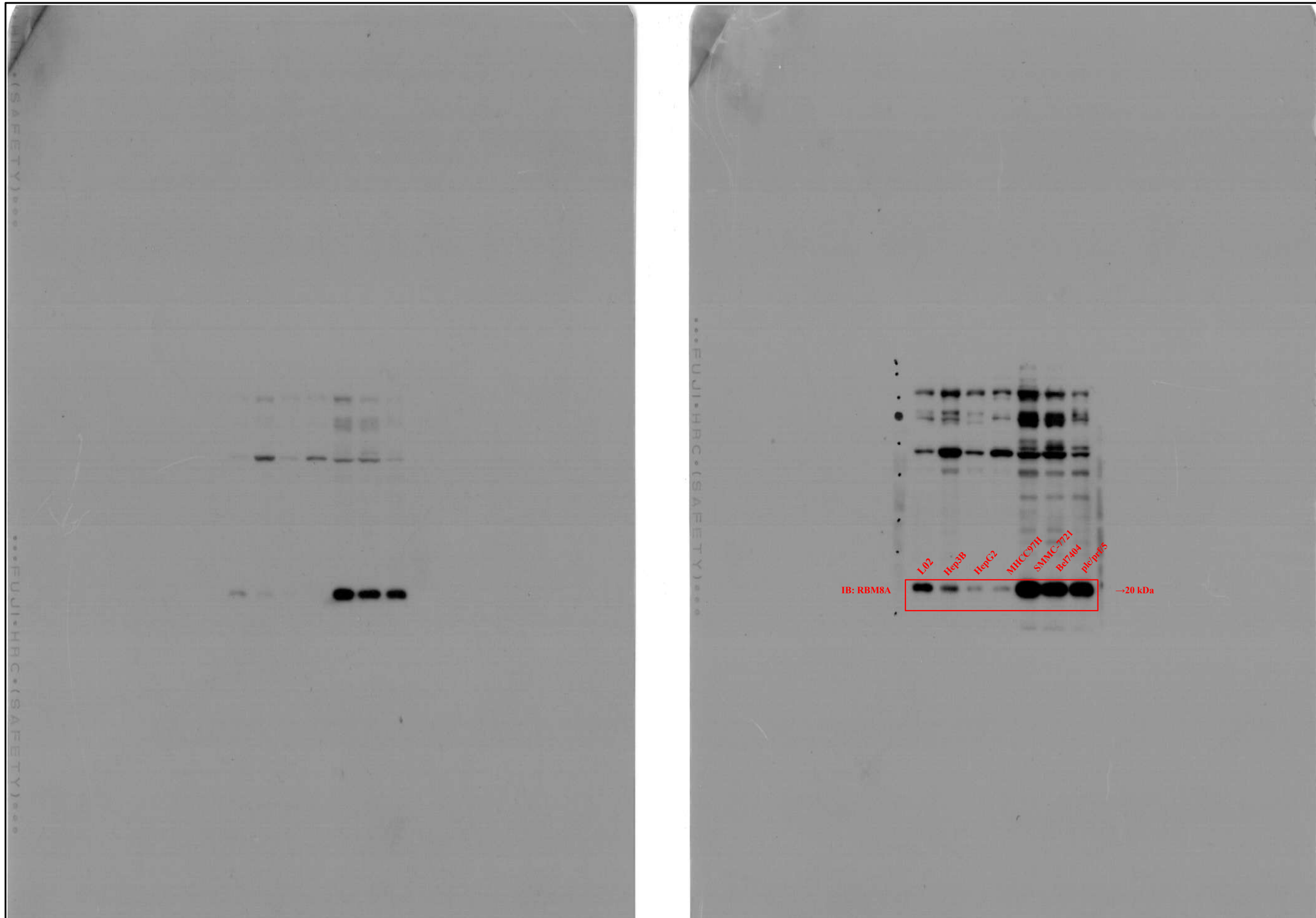


Figure 4 C



Western blot analysis showing HDAC9 expression in various cell lines. The blot is probed with anti-HDAC9 antibody. The lanes are labeled: L02, HepG2, MCF-7, SK-N-SH, Beas-213, and PC9. A red box highlights the HDAC9 bands in the L02, HepG2, MCF-7, and SK-N-SH lanes. A red arrow points to the HDAC9 band in the Beas-213 lane. The molecular weight marker is indicated as 160 kDa.

→160 kDa

Figure 4 C

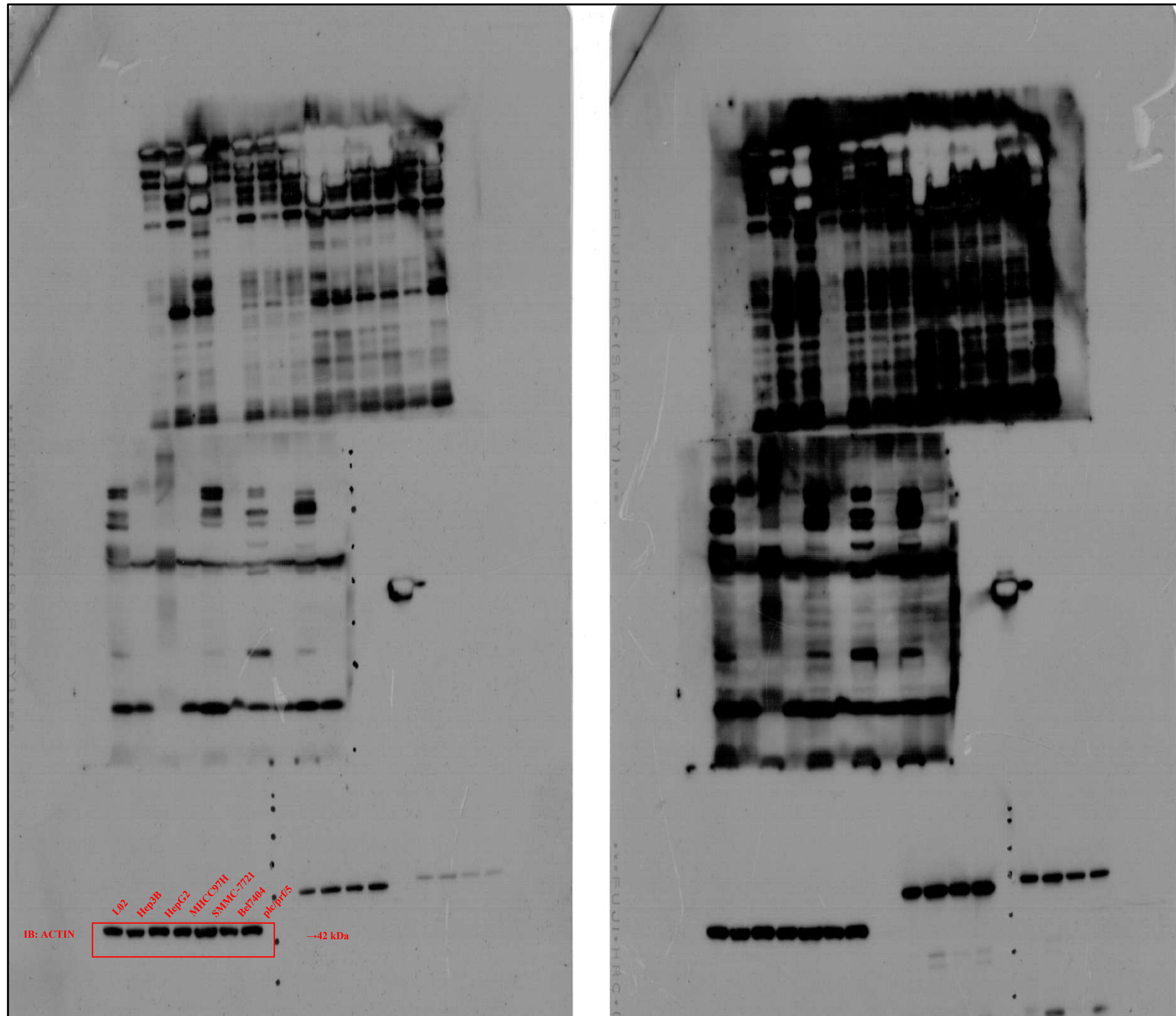
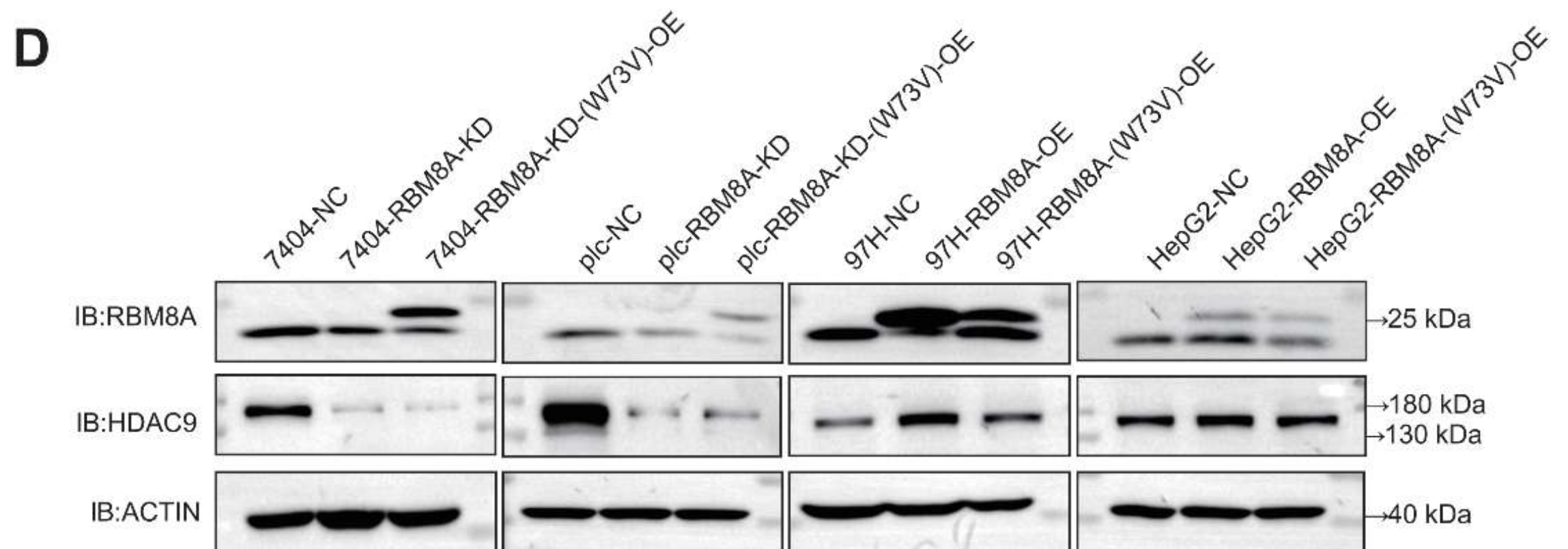


Figure 4 D



Western blot assay detecting expressions of RBM8A and HDAC9 in HCC cell lines (Bel7404 , PLC/PRF/5, HepG2 and MHCC97H) with up-/down- regulation of RBM8A and its mutant types (W73V). Data are representative of three similar observations or are shown as means $\pm$ SD of three experiments..

Figure 4 D

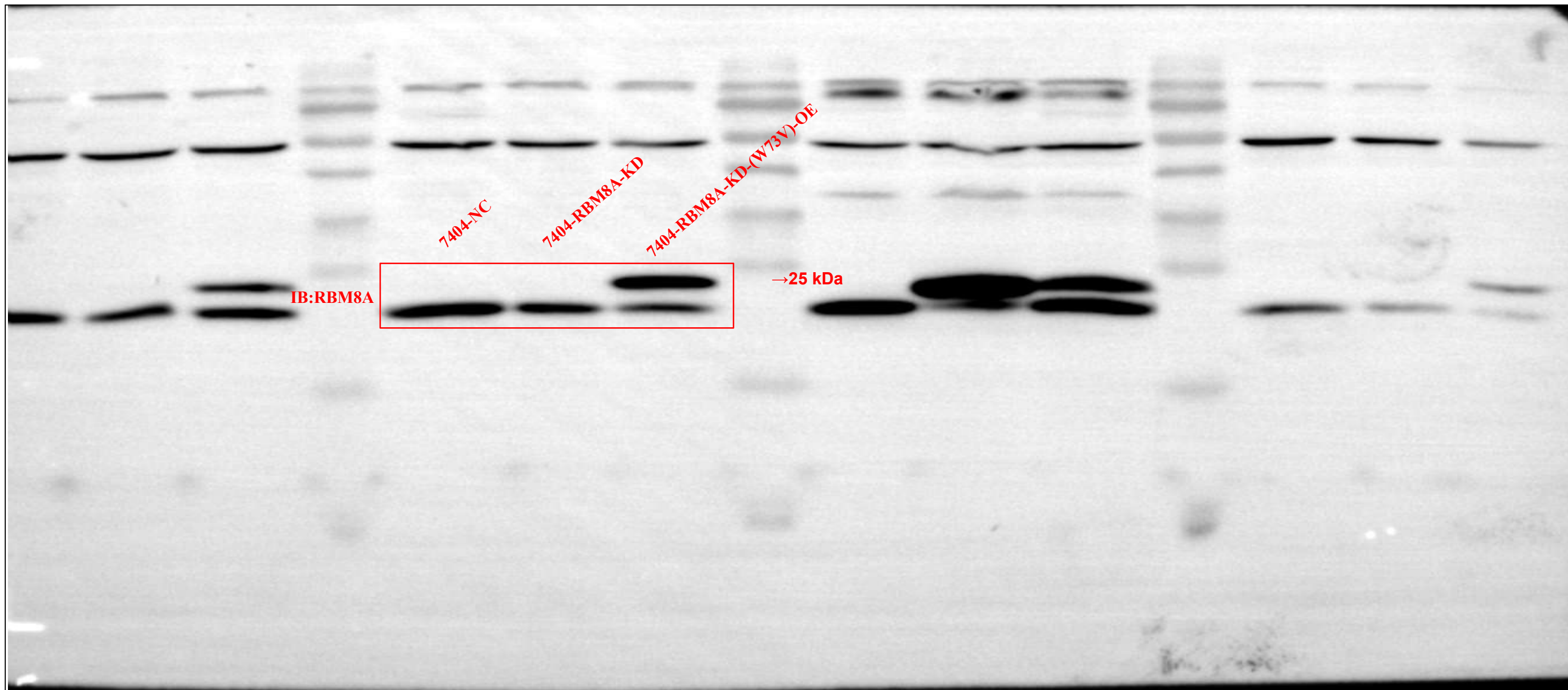


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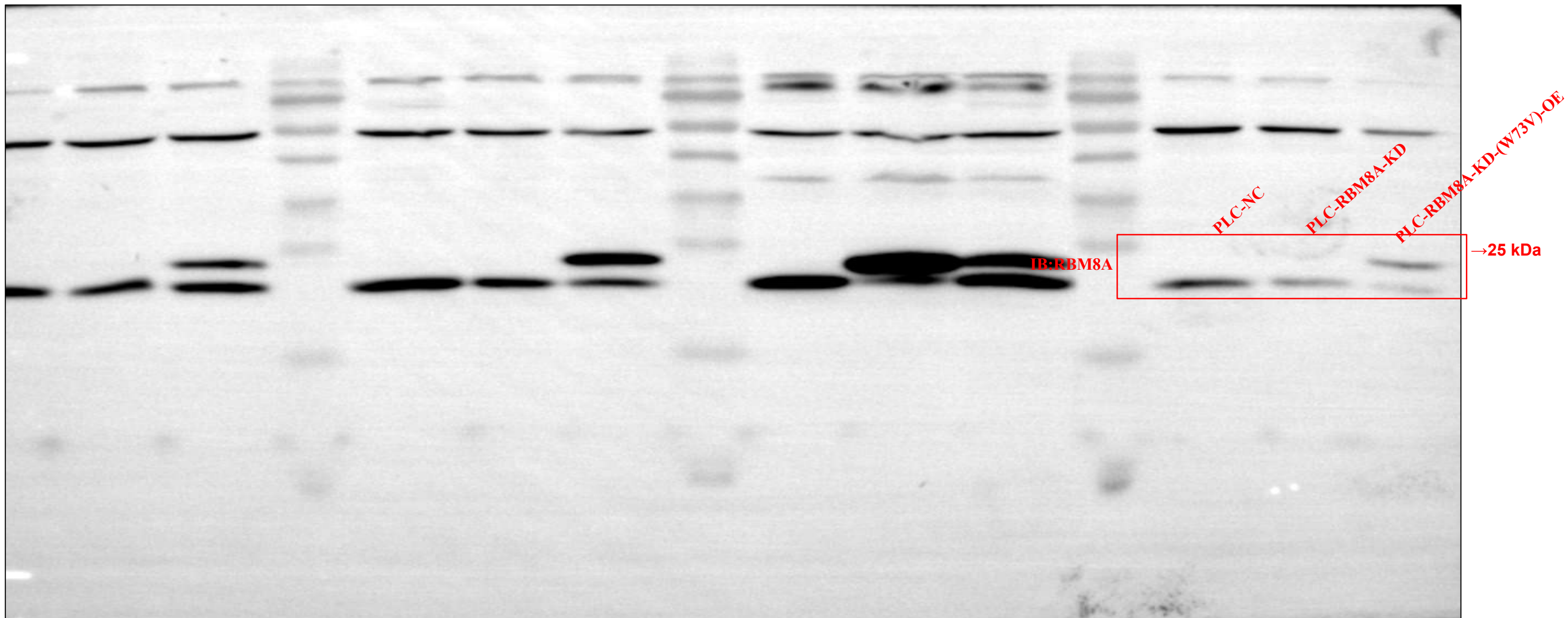


Figure 4 D

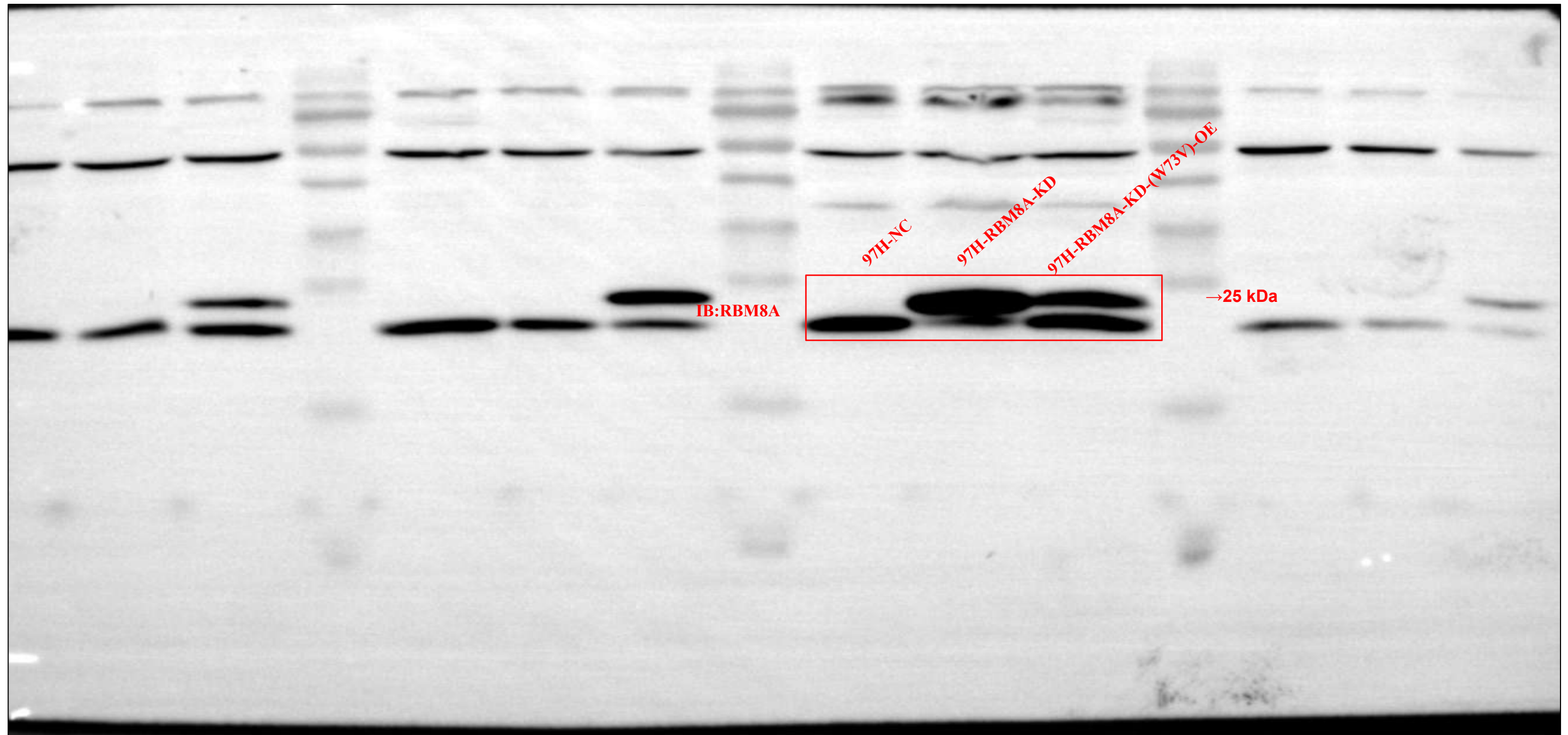


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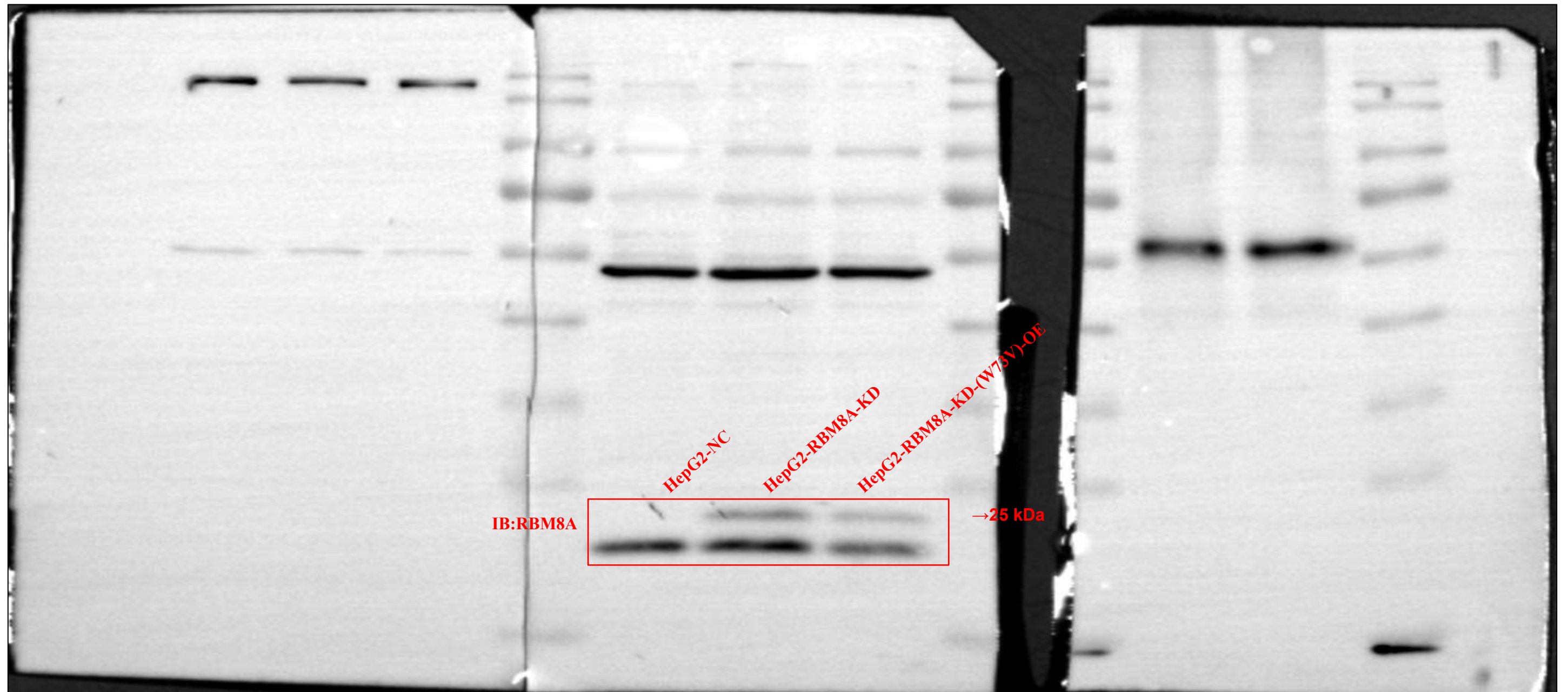


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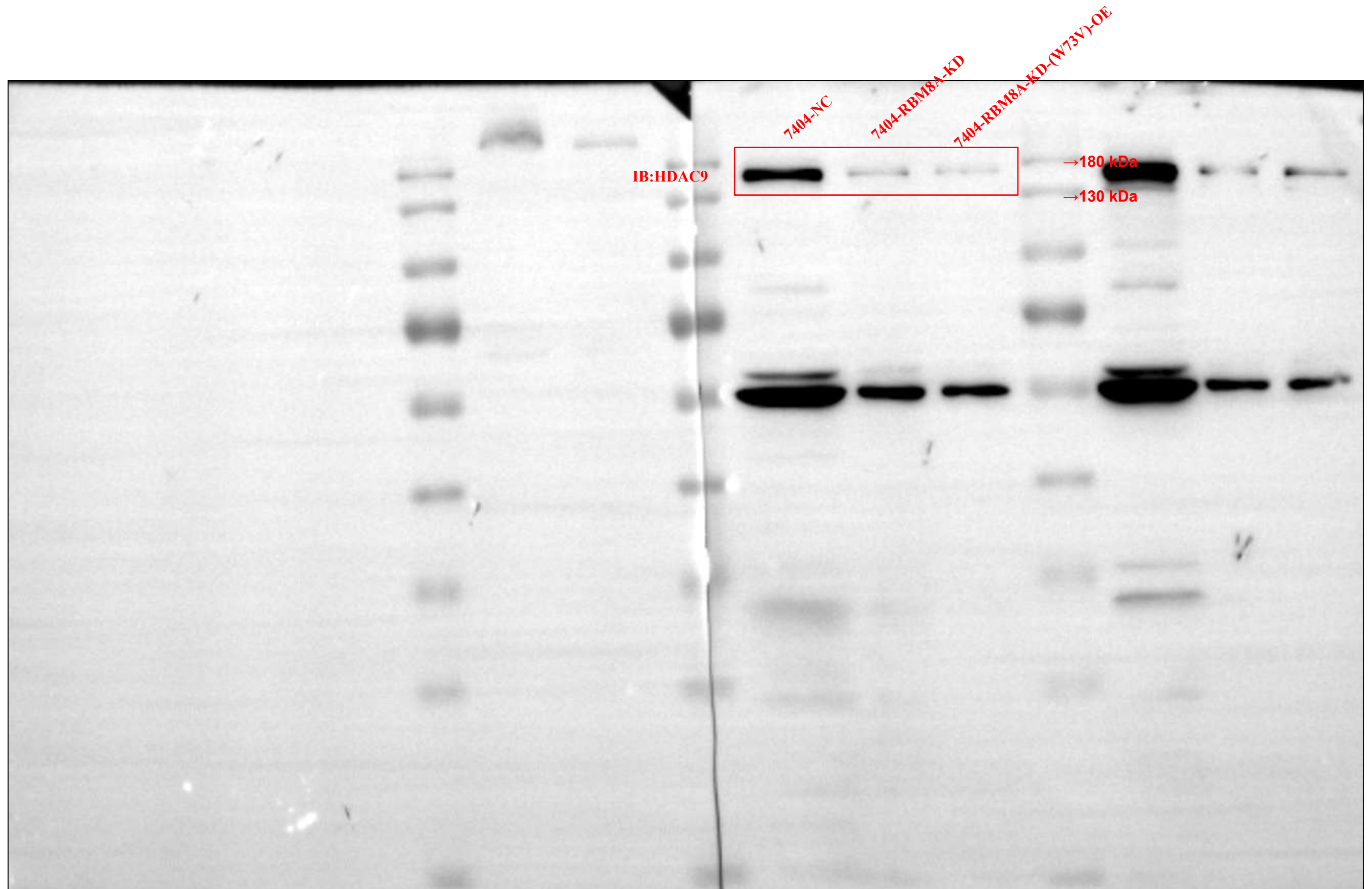


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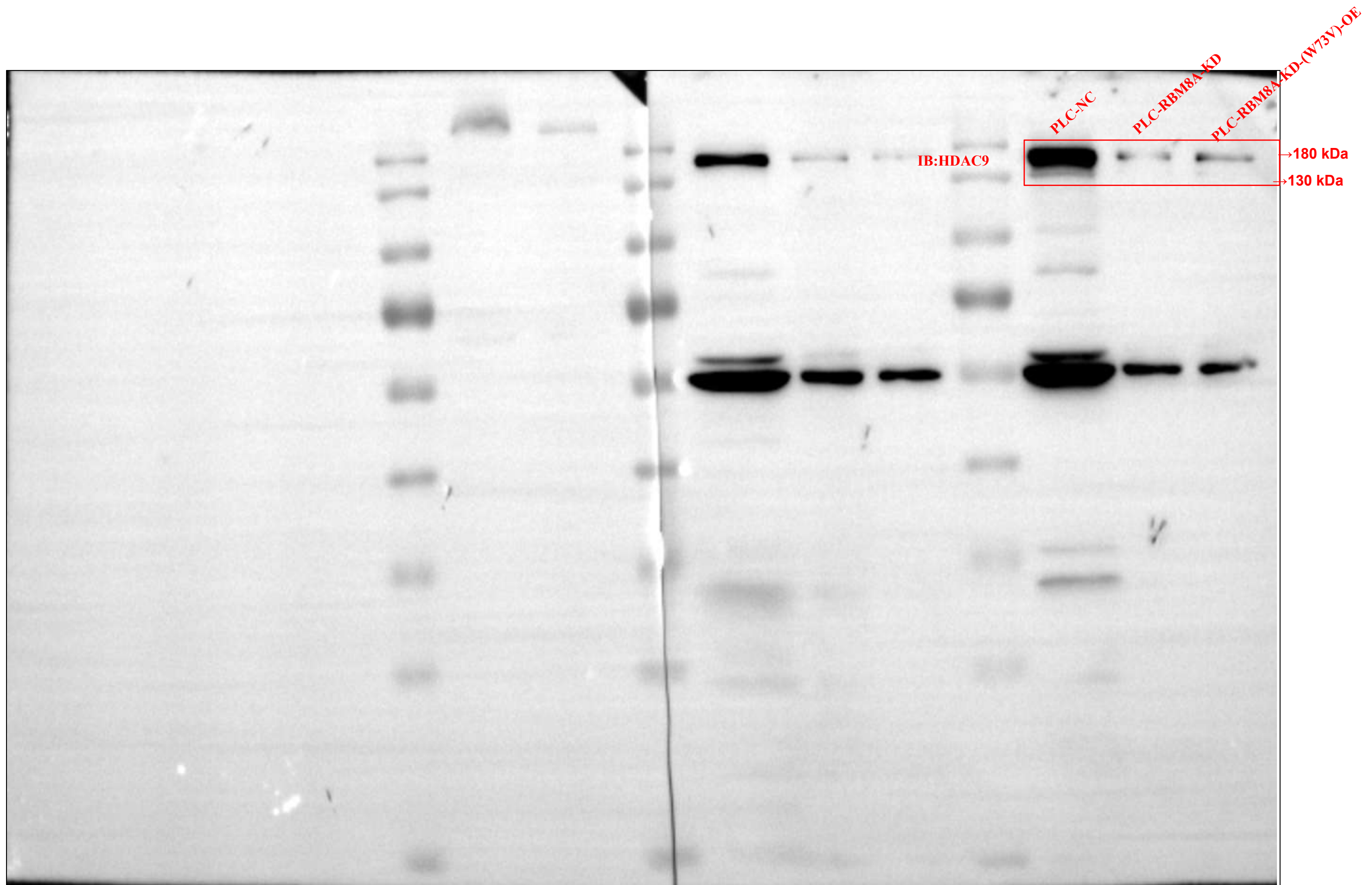


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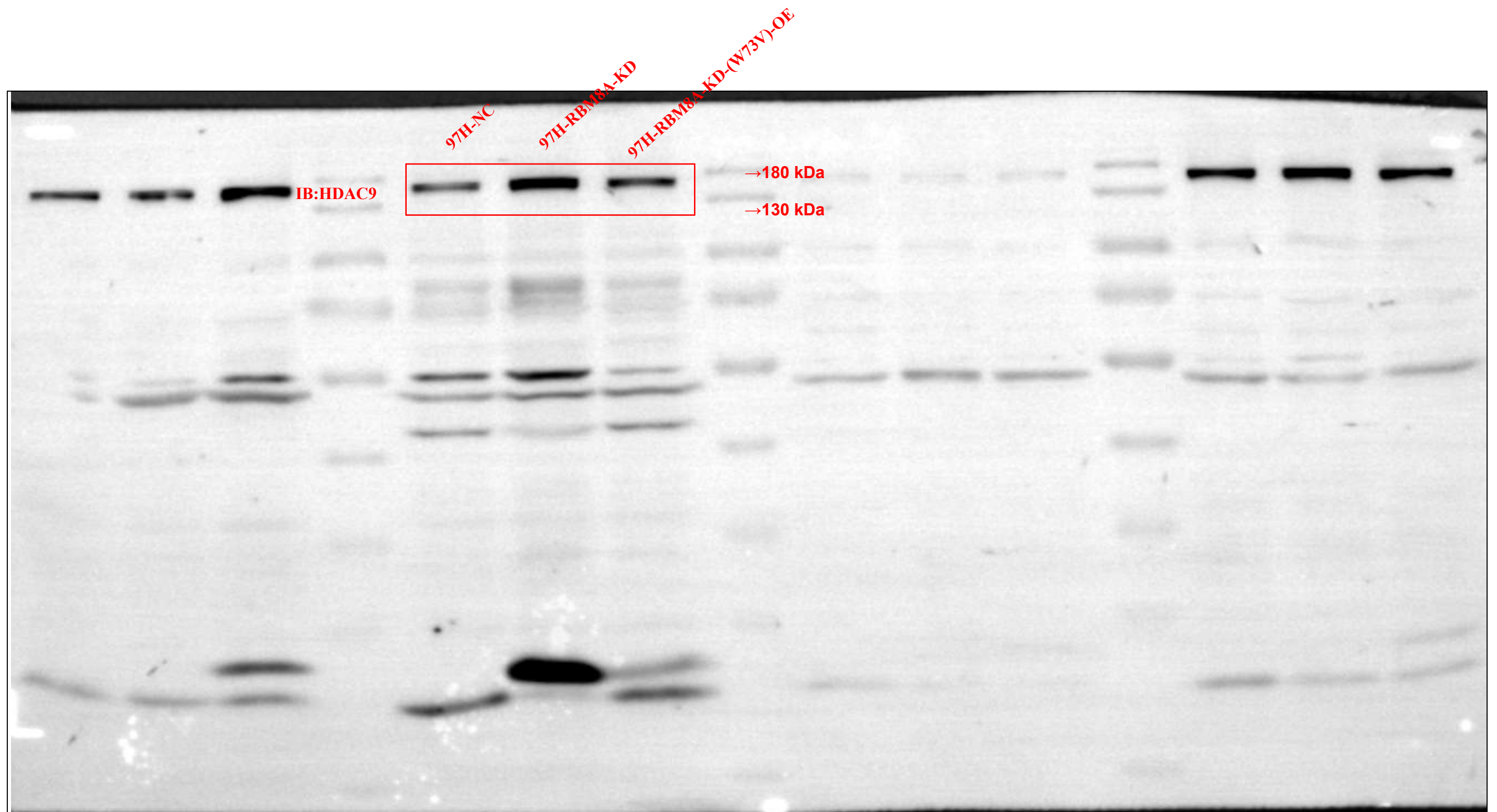


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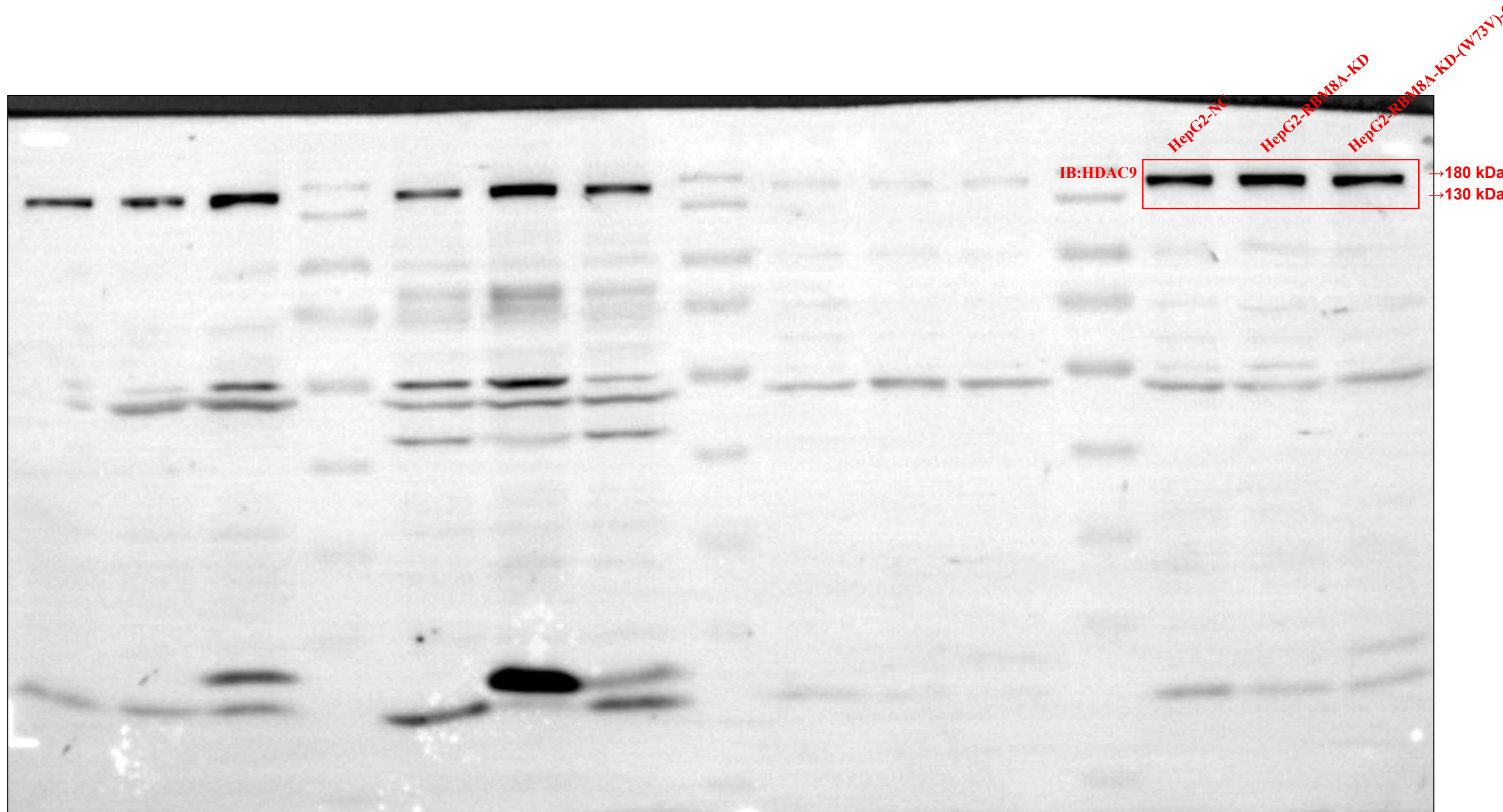


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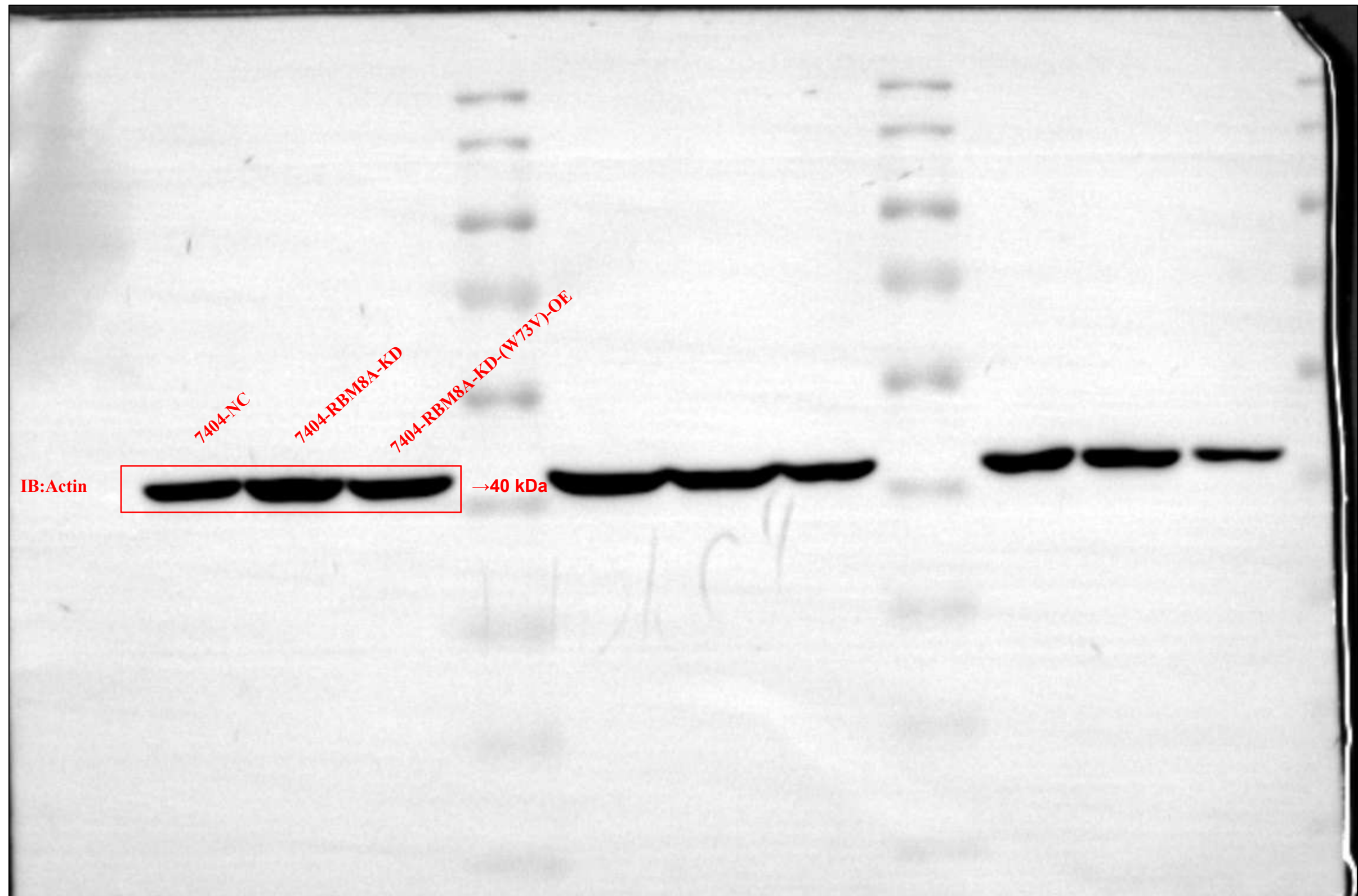


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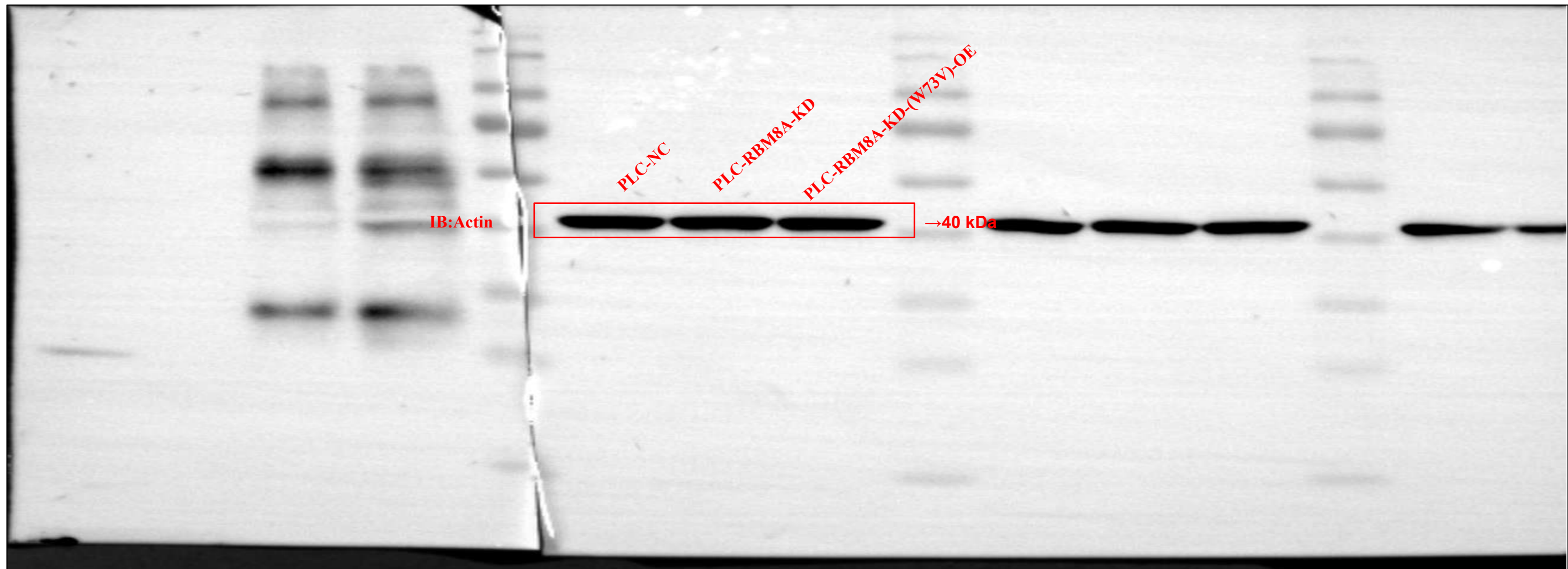


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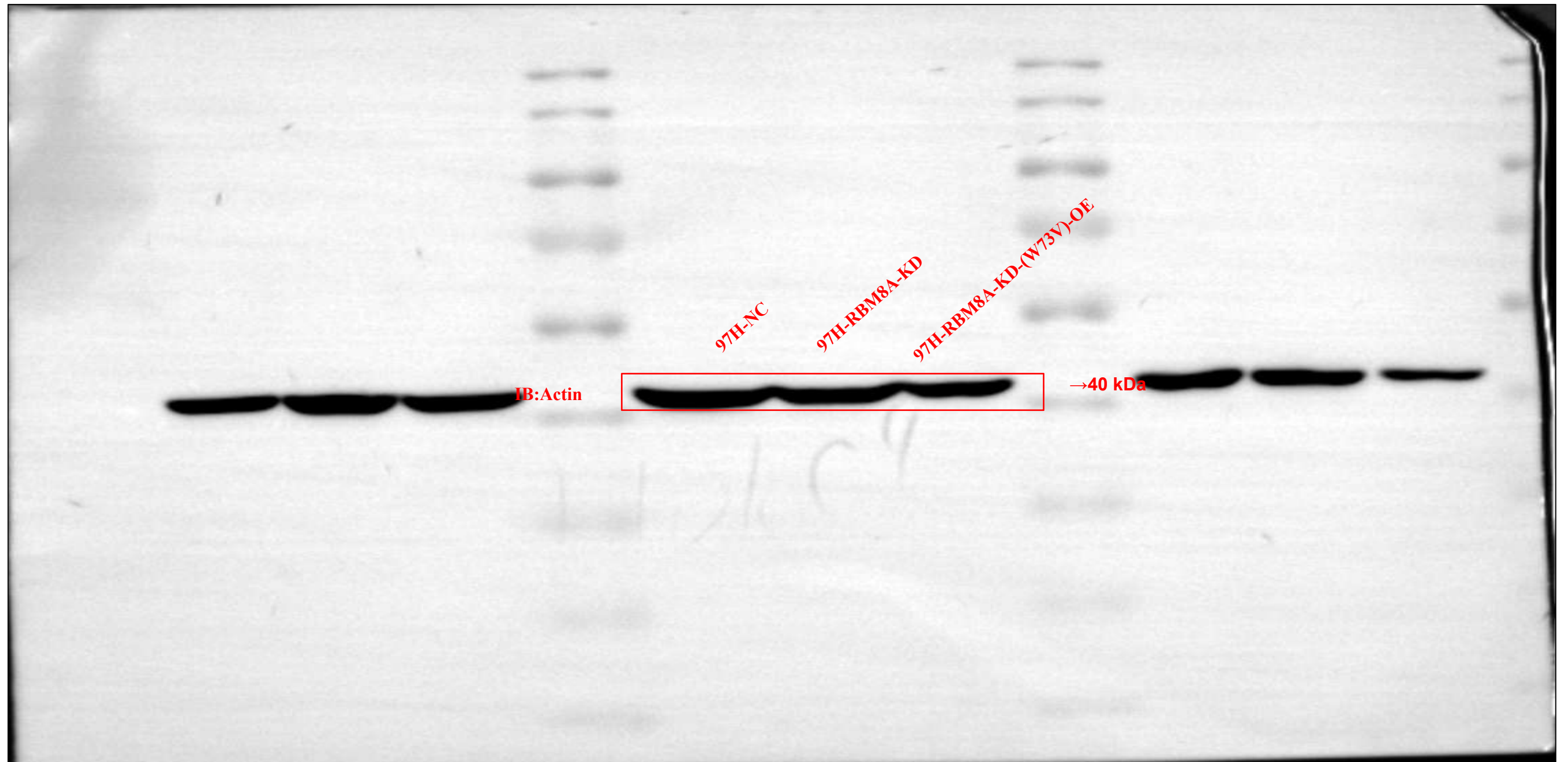


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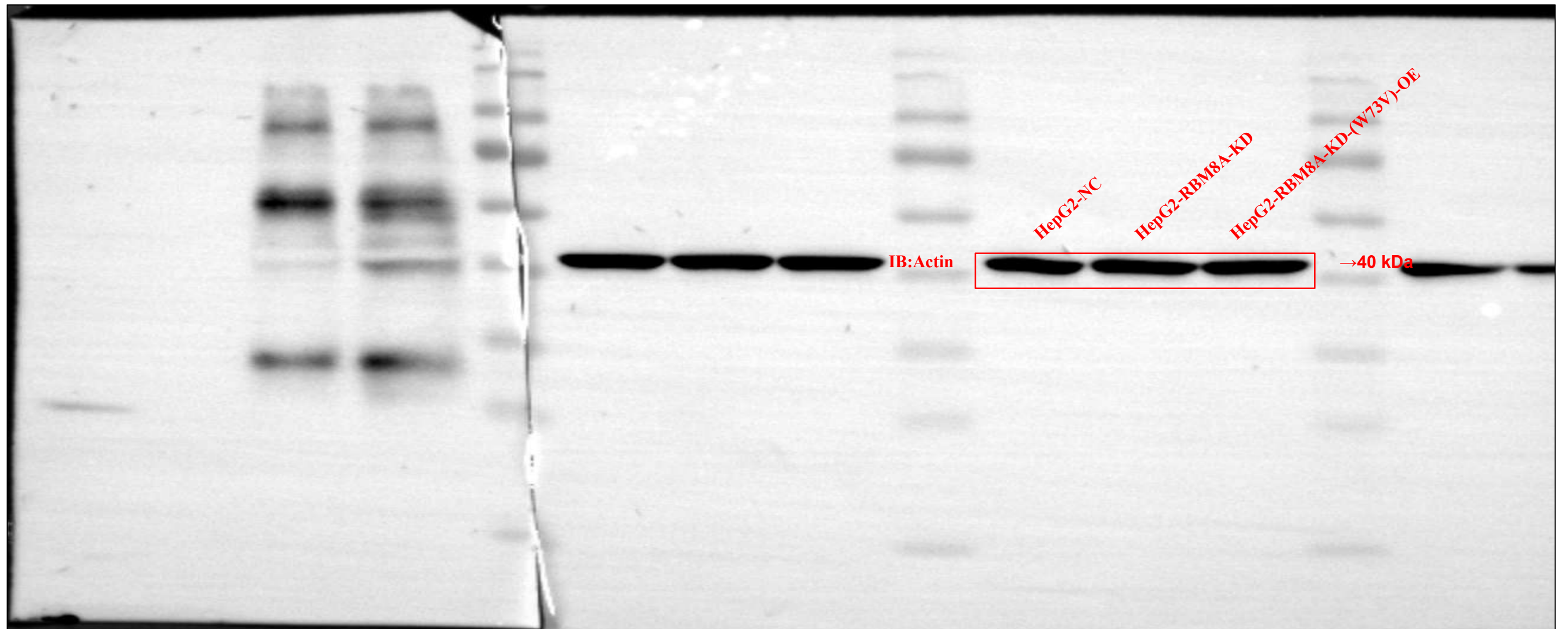


Figure S4 B

qRT-PCR and western blot detecting the mRNA and protein expressions of RBM8A in HepG2-RBM8A-NC and HepG2-RBM8A-OE cells.

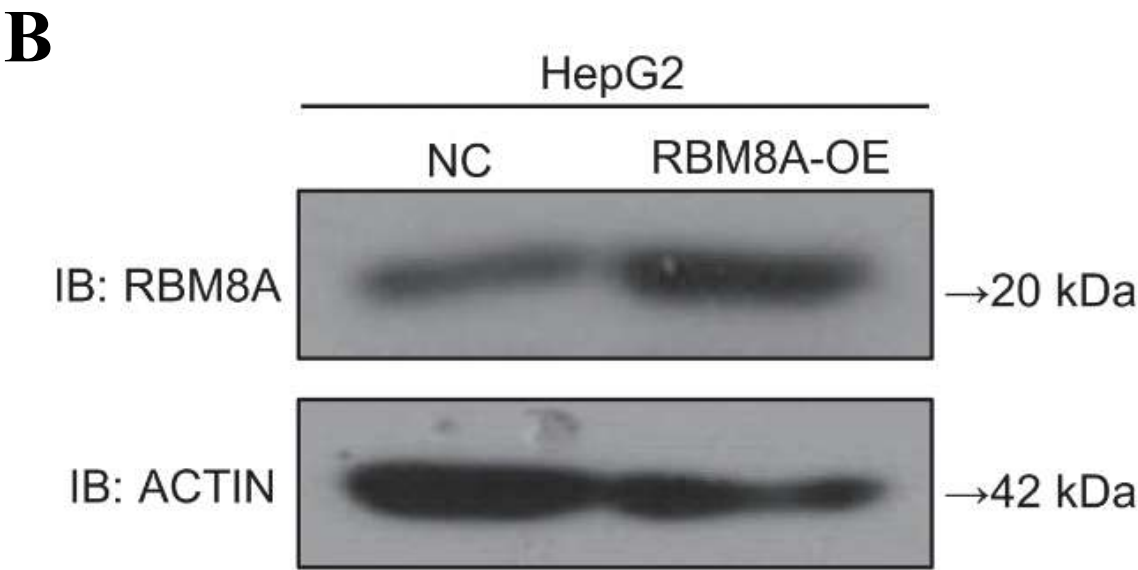


Figure S4 B

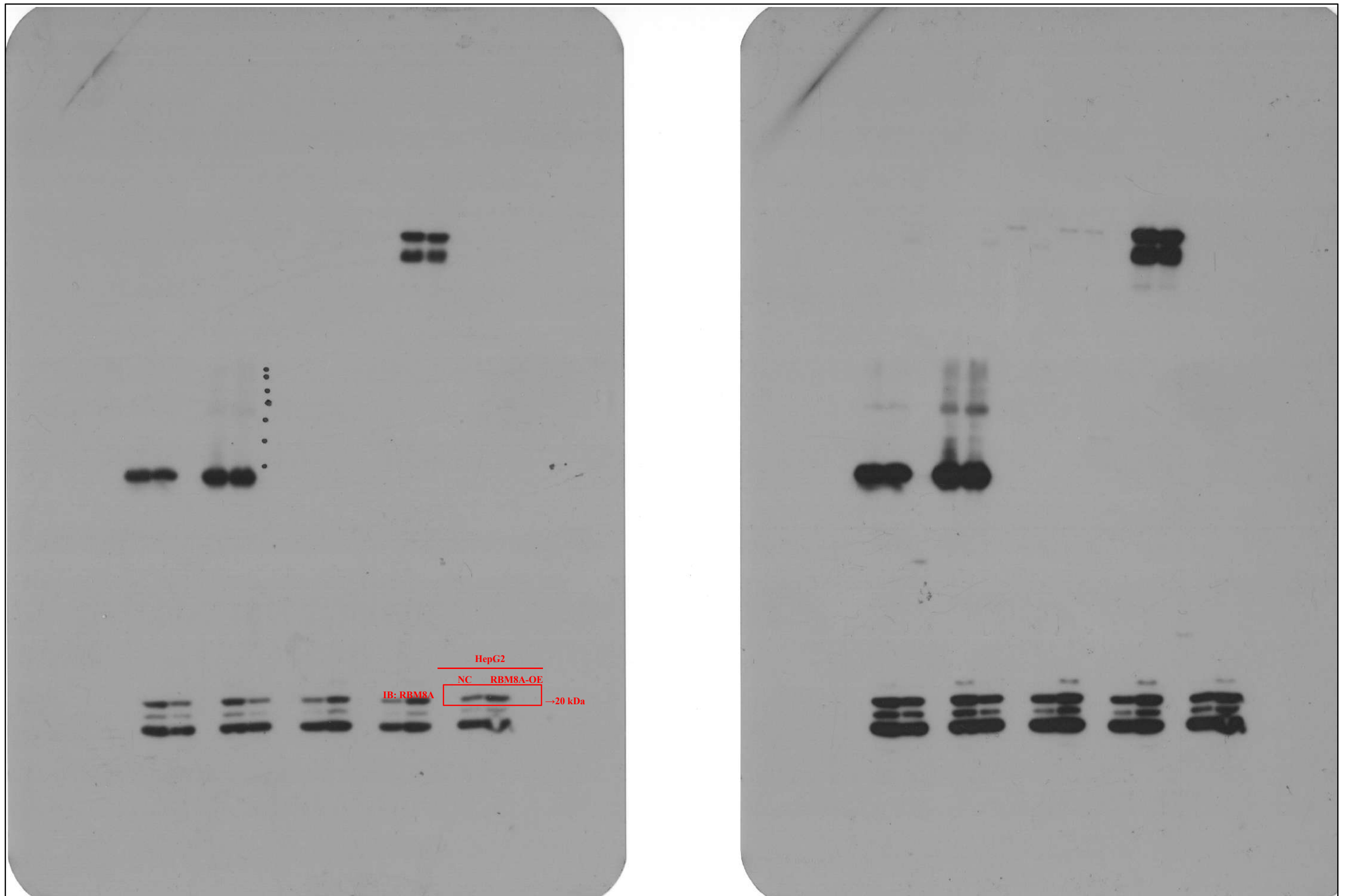


Figure S4 B

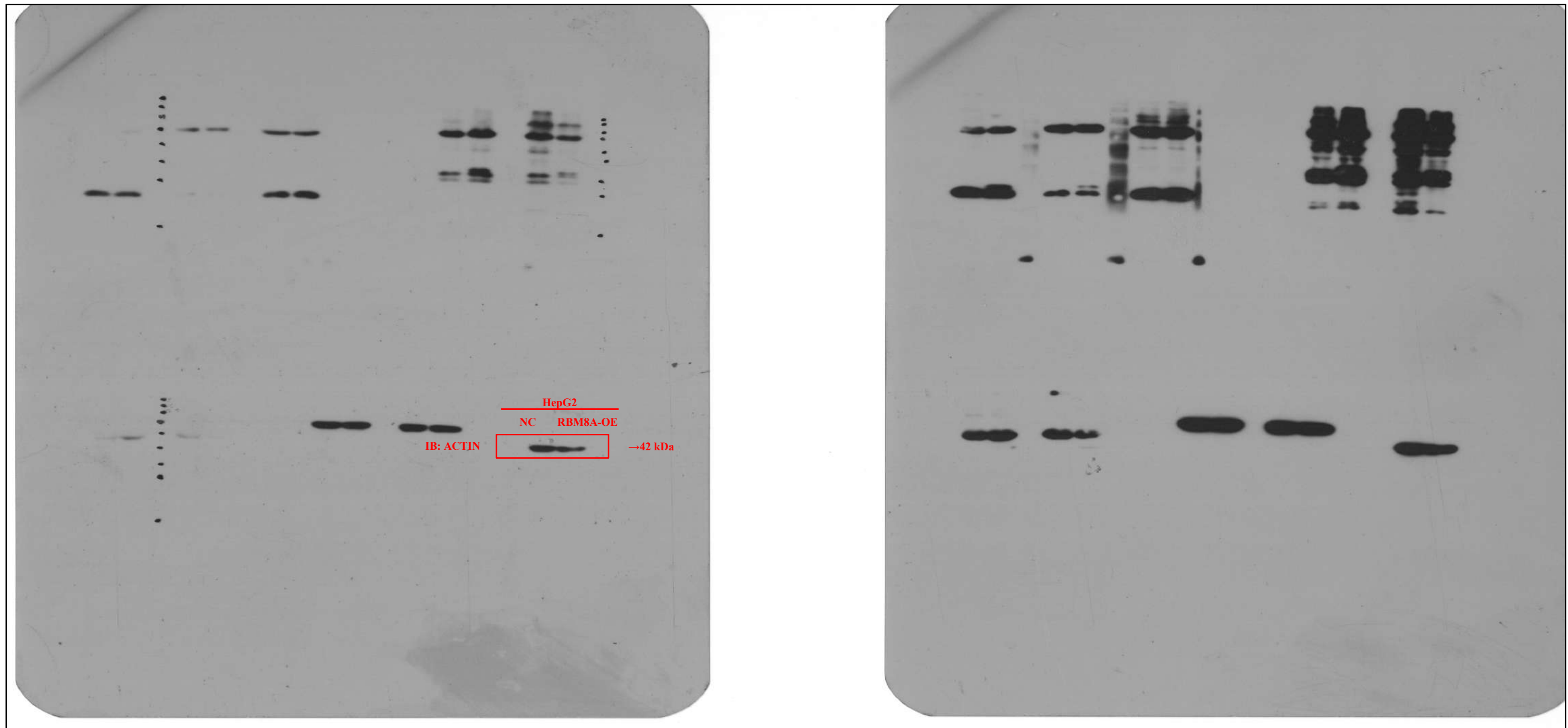


Figure S4 C

qRT-PCR and western blot detecting the mRNA and protein expressions of RBM8A in PLC/PRF/5-RBM8A-NC and PLC/PRF/5-RBM8A-KD cells.

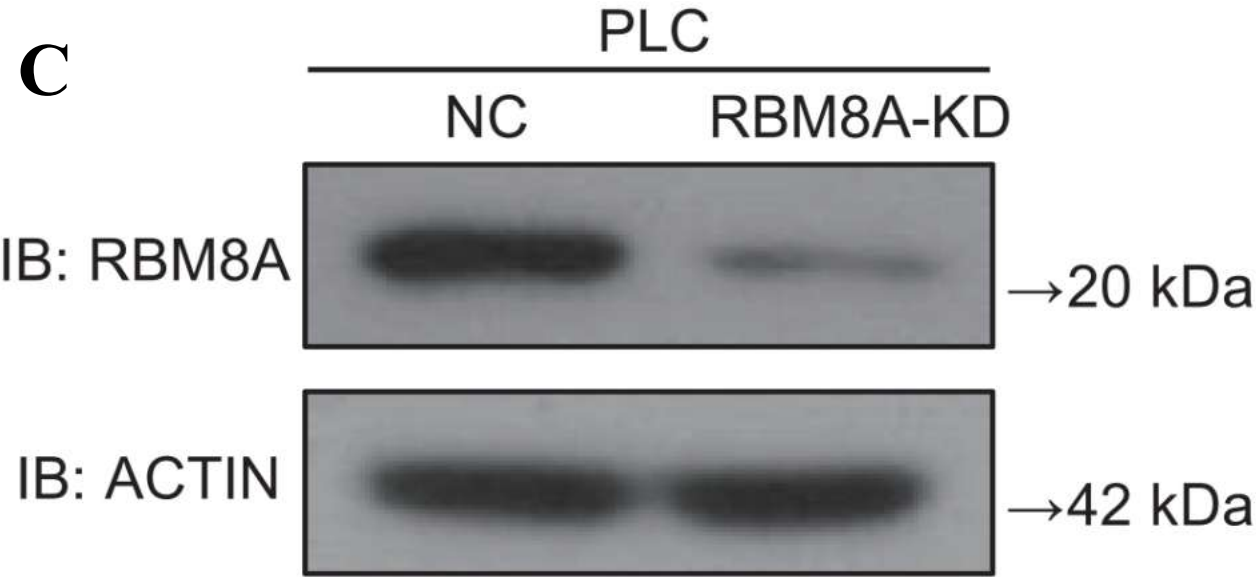


Figure S4 C

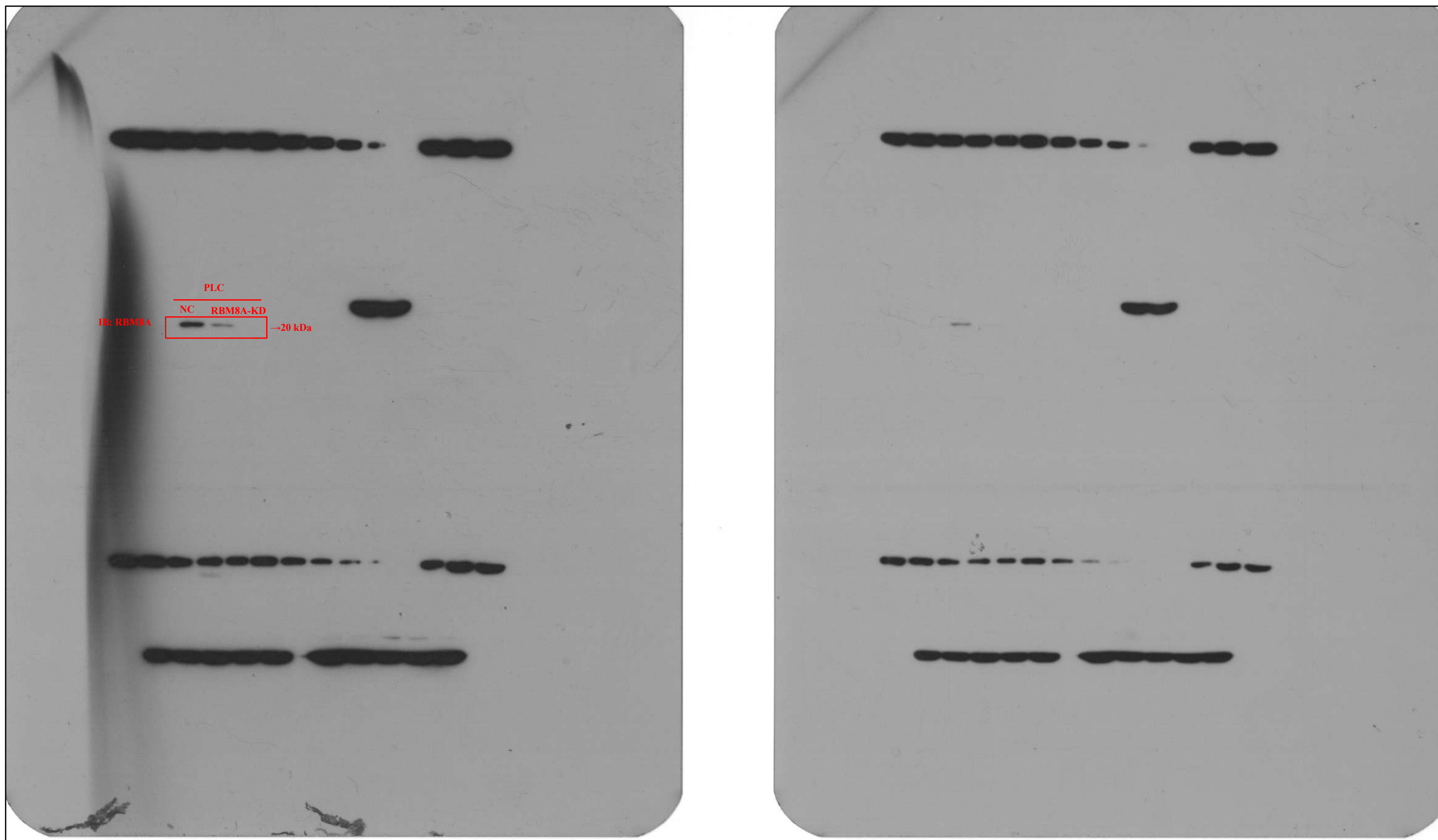


Figure S4 C

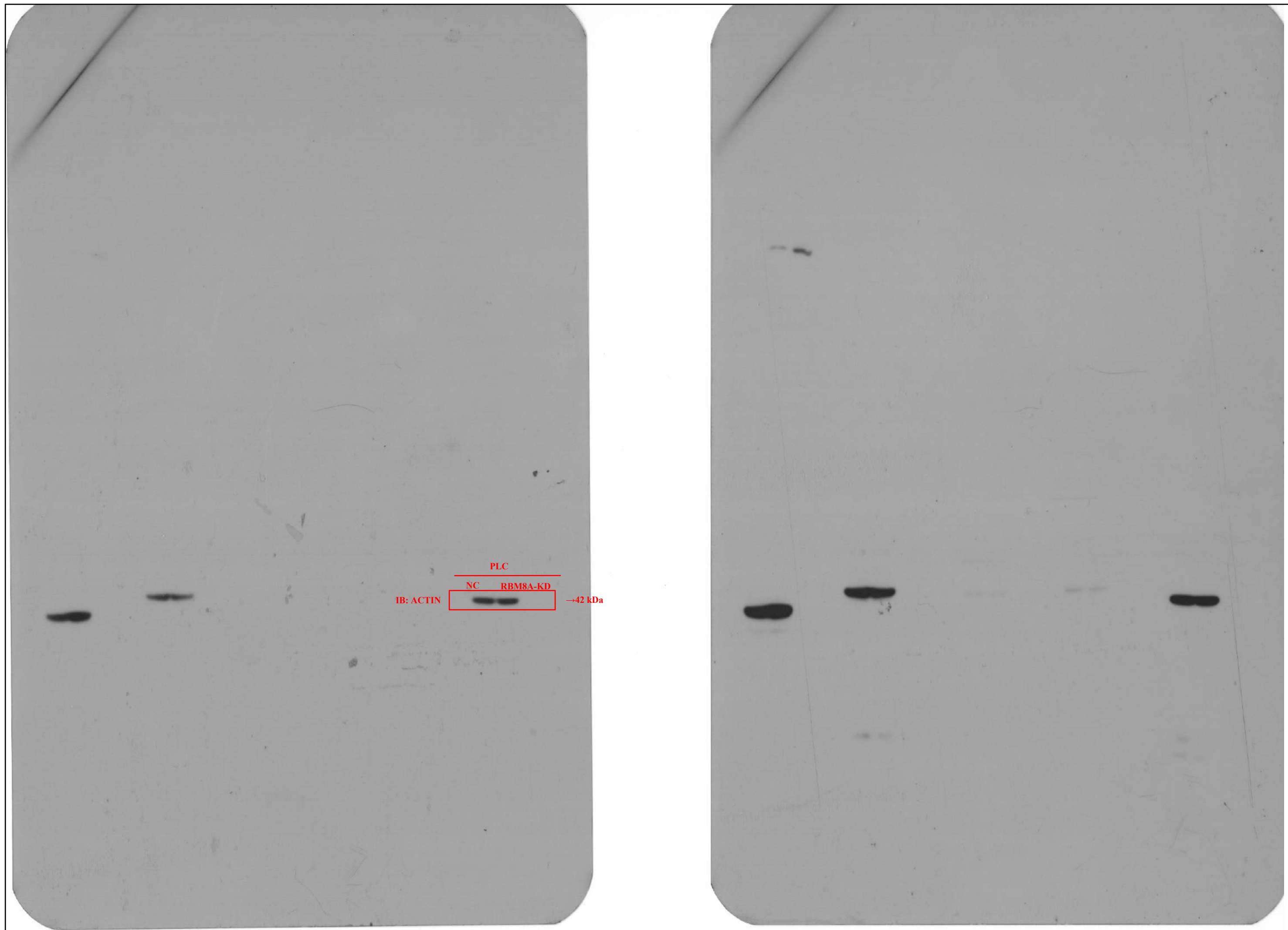
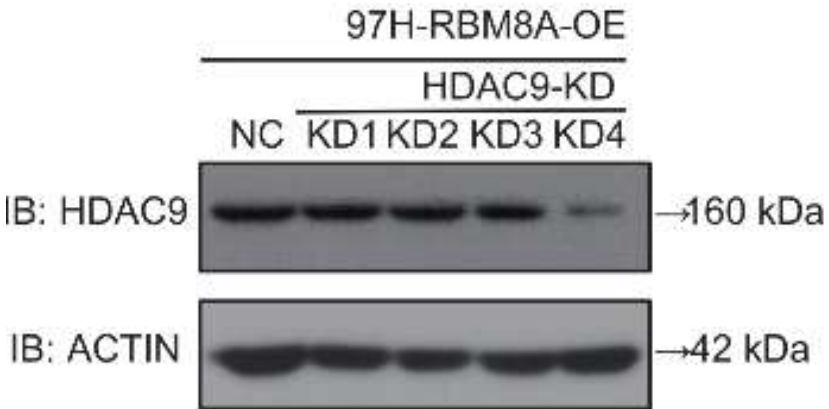


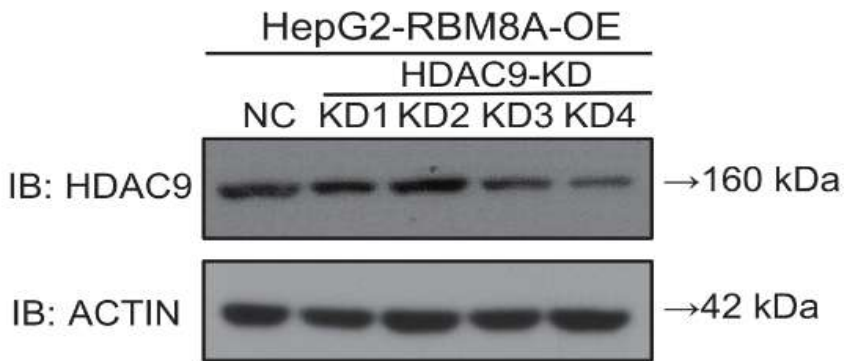
Figure S4 D

(D-H) qRT-PCR and western blot the mRNA and protein expressions of HDAC9 in HCC cell lines (HepG2, MHCC97H, Bel7404 and PLC/PRF/5) with RBM8A-OE/HDAC9-KD (D-E), RBM8A-OE/HDAC9 inhibition (Ditrifluoroacetate, BRD4354) (F), and RBM8A-KD/HDAC9-OE (G-H).

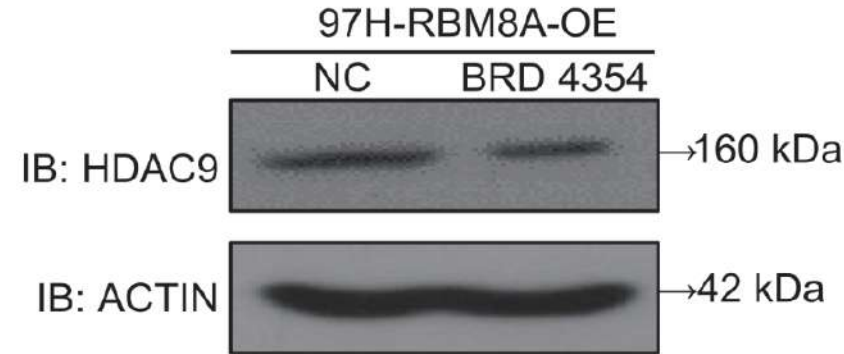
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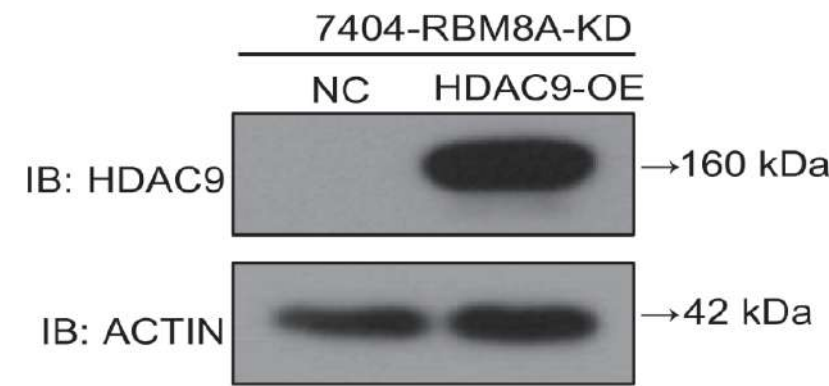
E



F



G



H

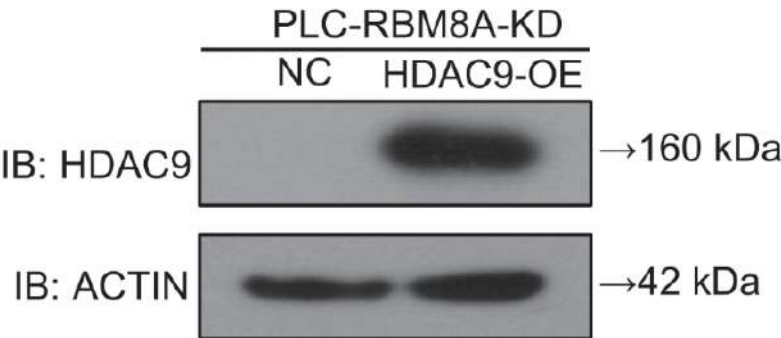


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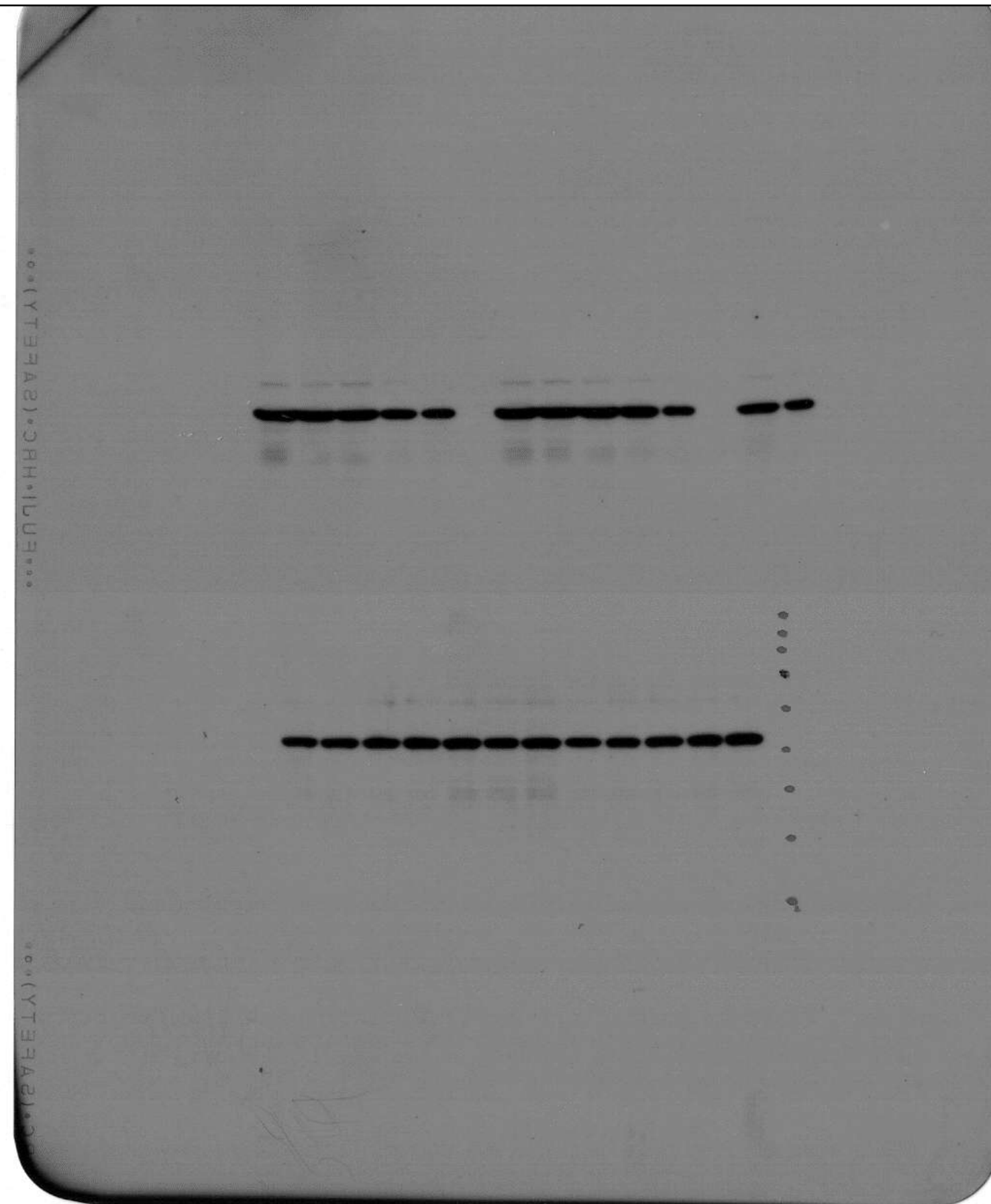
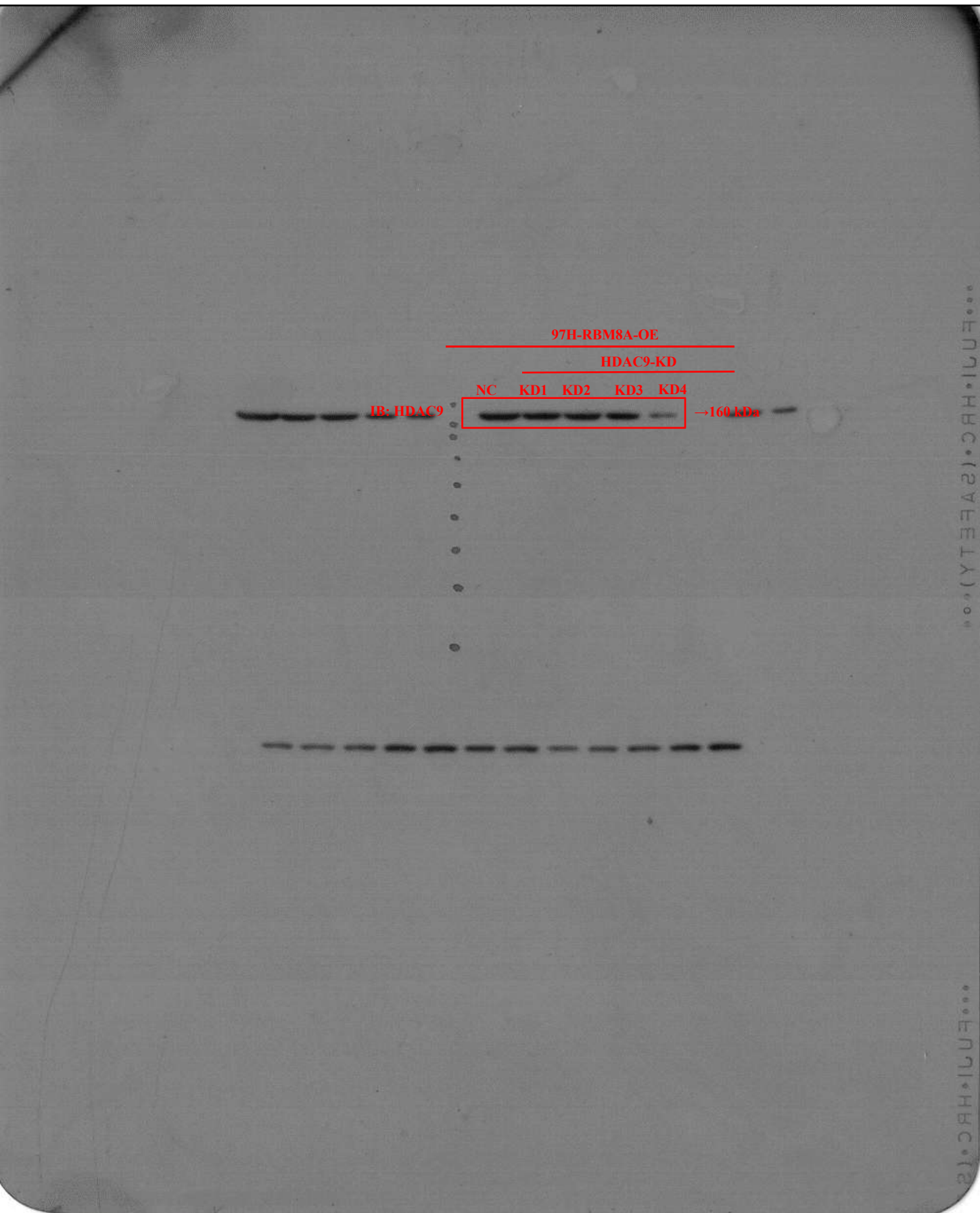


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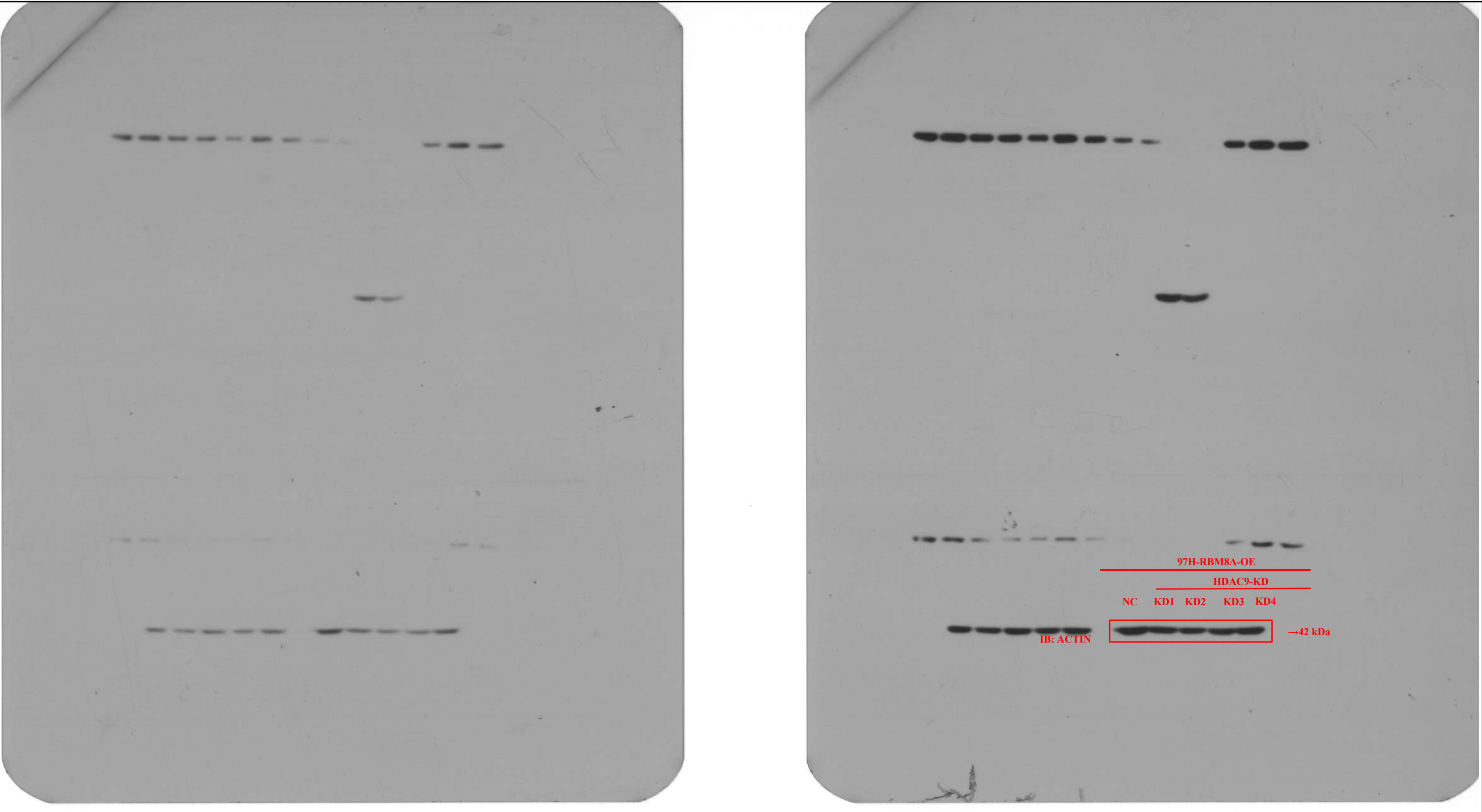


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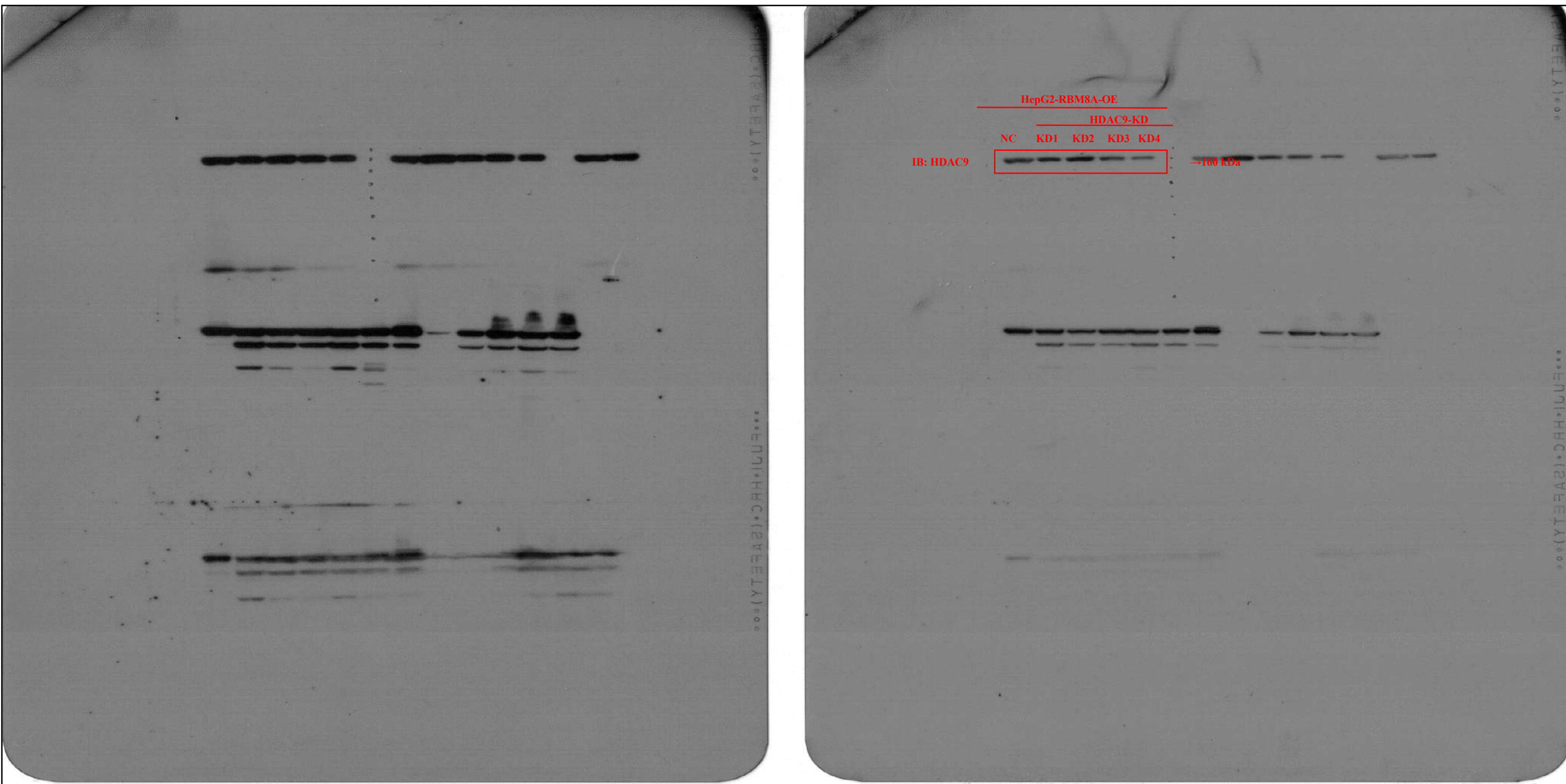


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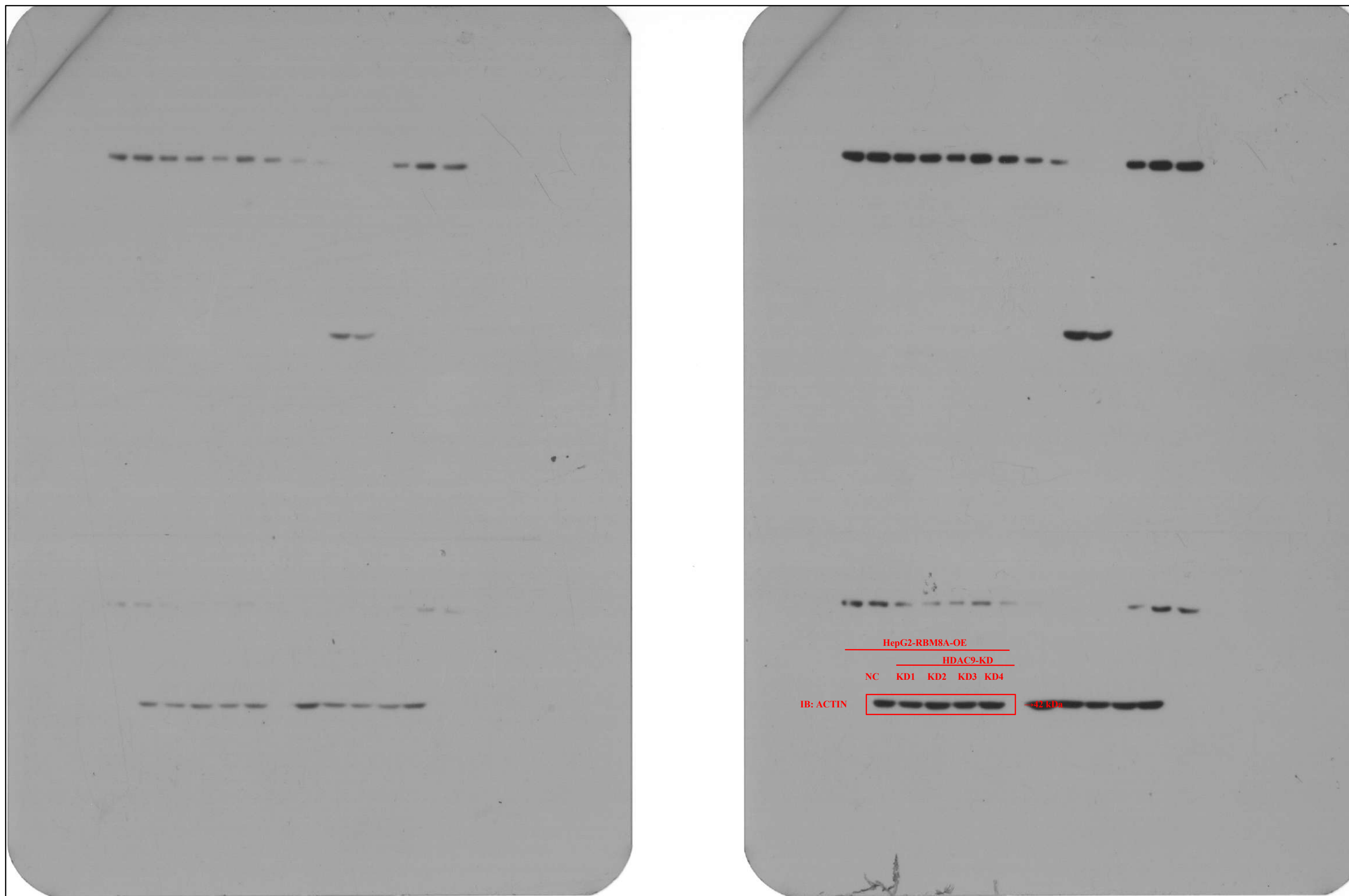


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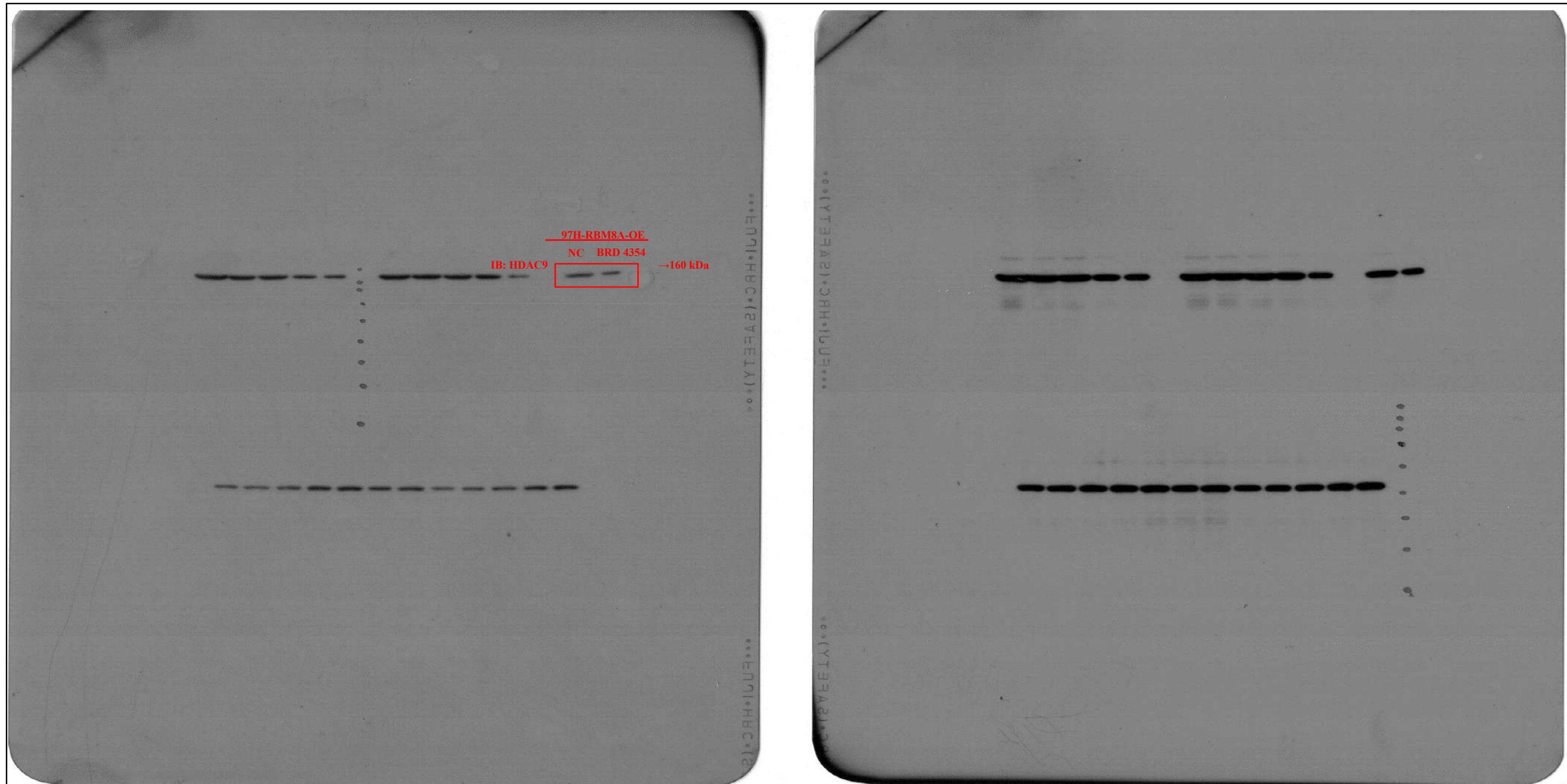


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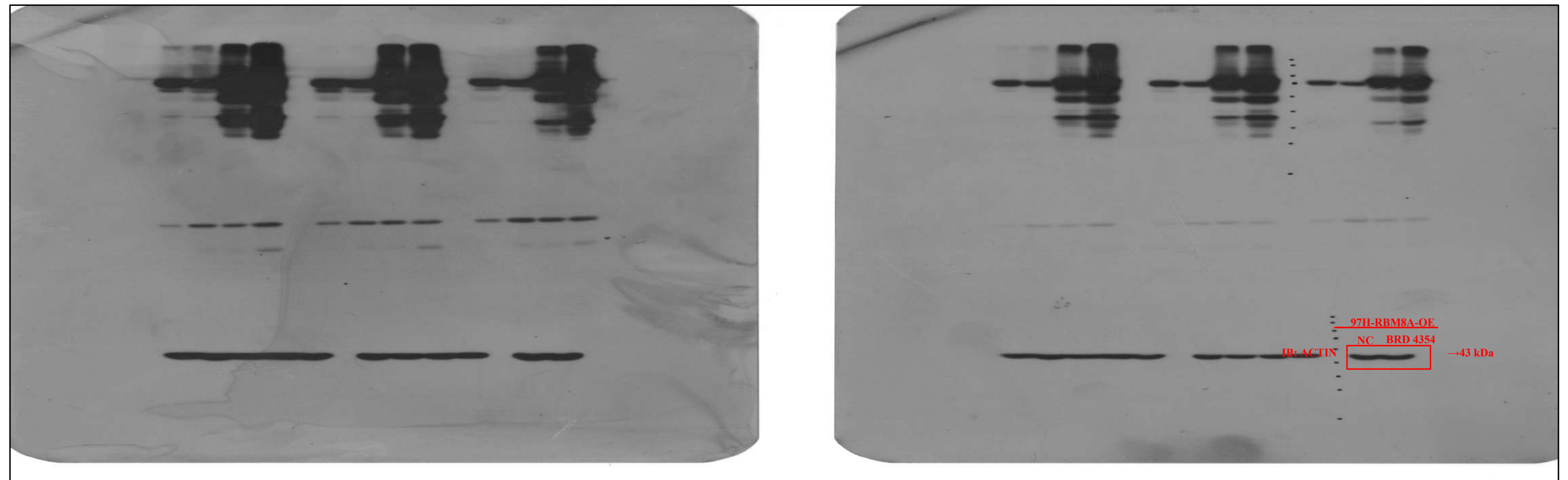


Figure S4 G

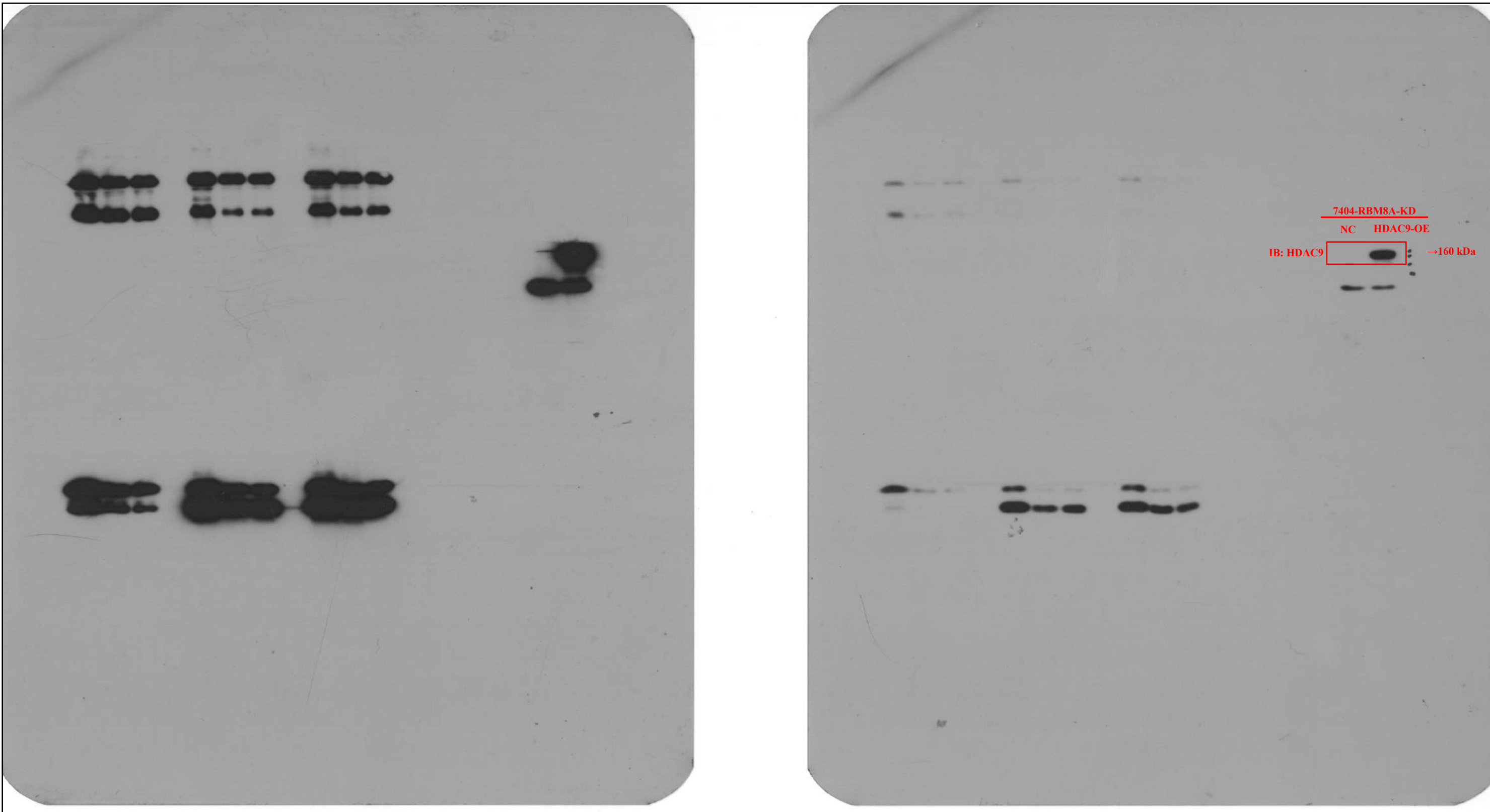


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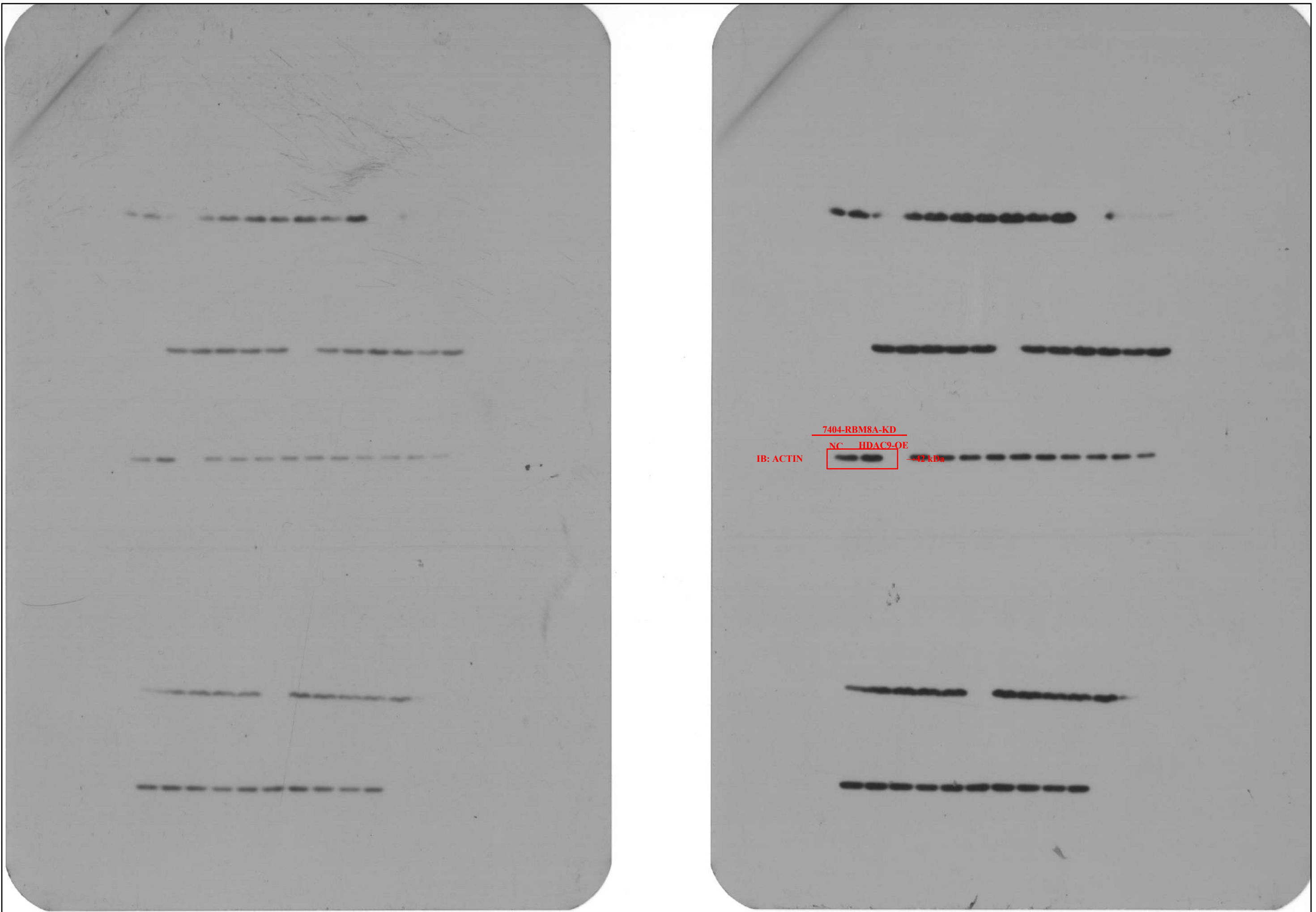


Figure S4 H

PLC-RBM8A-KD
NC HDAC9-OE
IB: HDAC9 →160 kDa

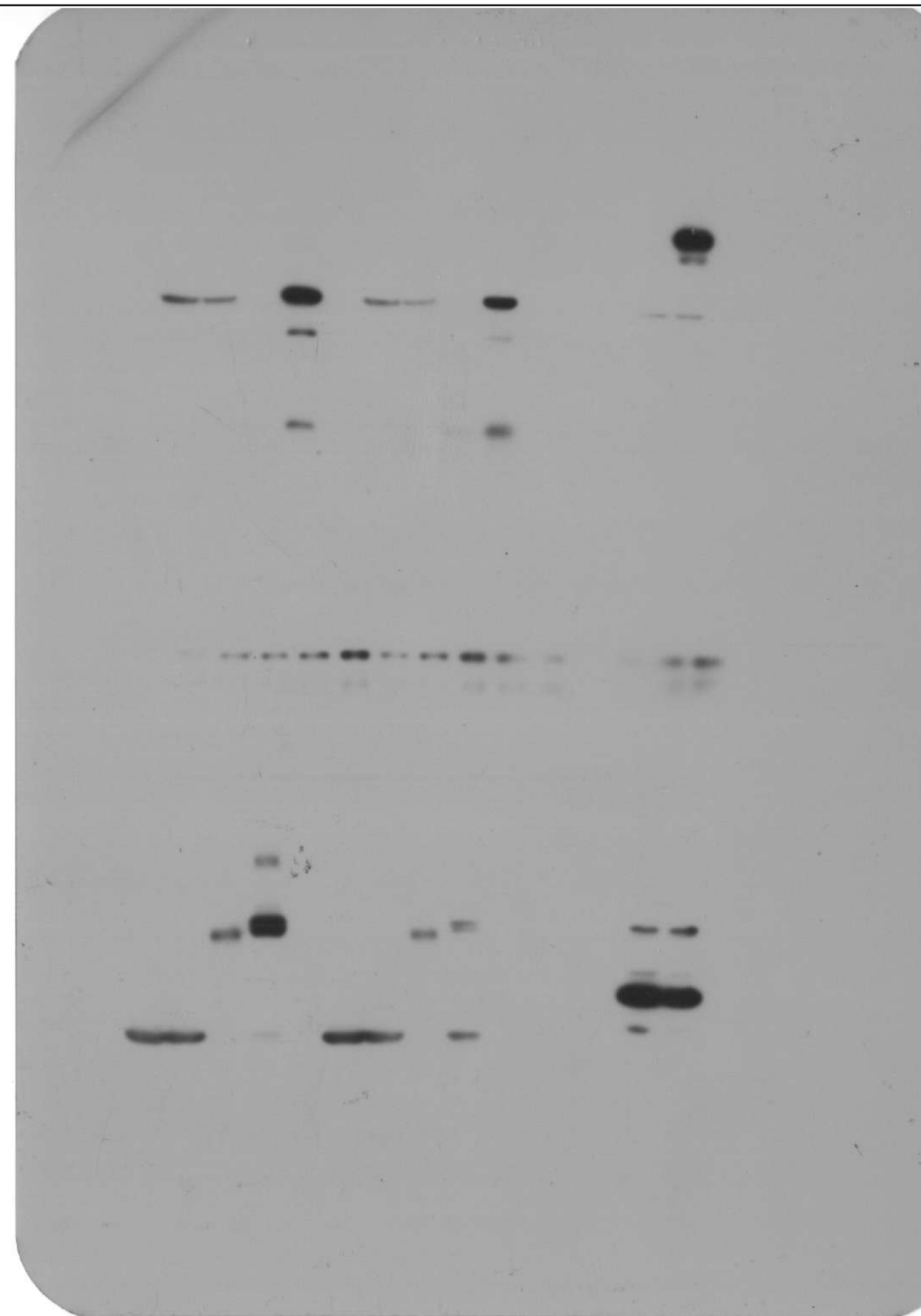


Figure S4 H

PLC-RBM8A-KD
NC HDAC9-OE
IB: ACTIN →42 kDa

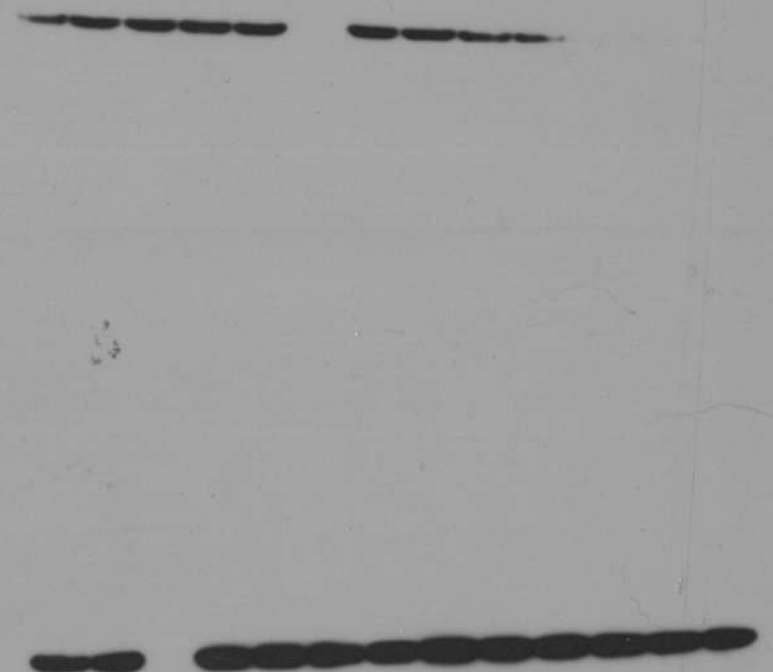
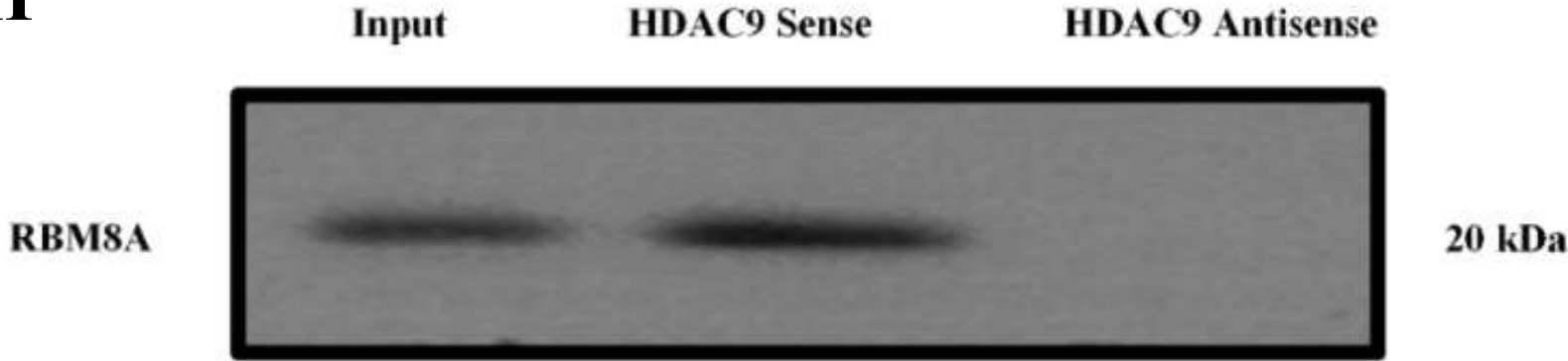


Figure 5 H

H



RNA-pulldown was performed to detect the specific binding between HDAC9 Sense/Antisense RNA and RBM8A protein in MHCC97H cells.

Figure 5H

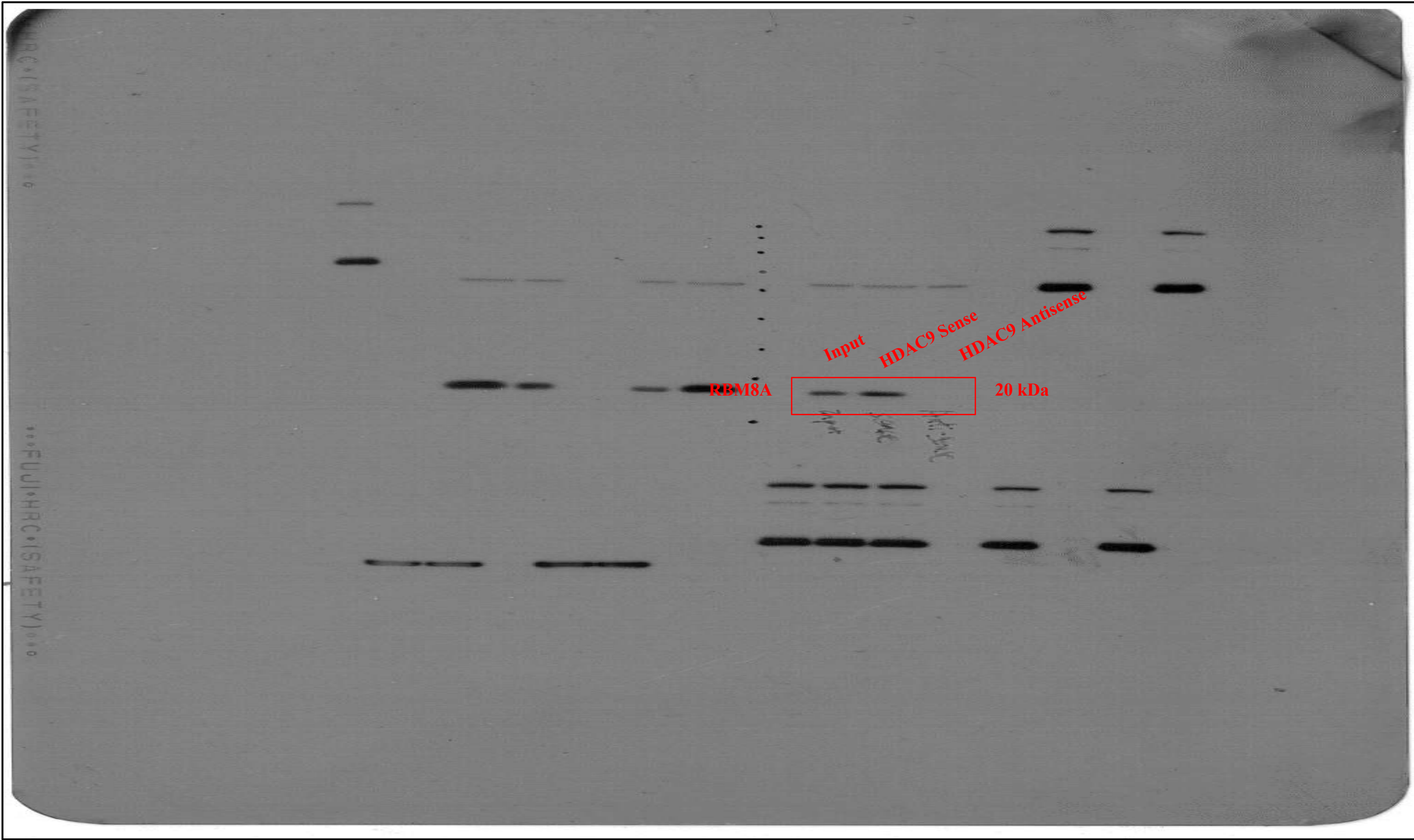


Figure S5 A

Sunset assay showing the effects of RBM8A knockdown or overexpression (- and + groups) on the relative expression of RBM8A (left) and protein translation levels (right) in MHCC97H cells. β -actin was applied as loading control.

A .

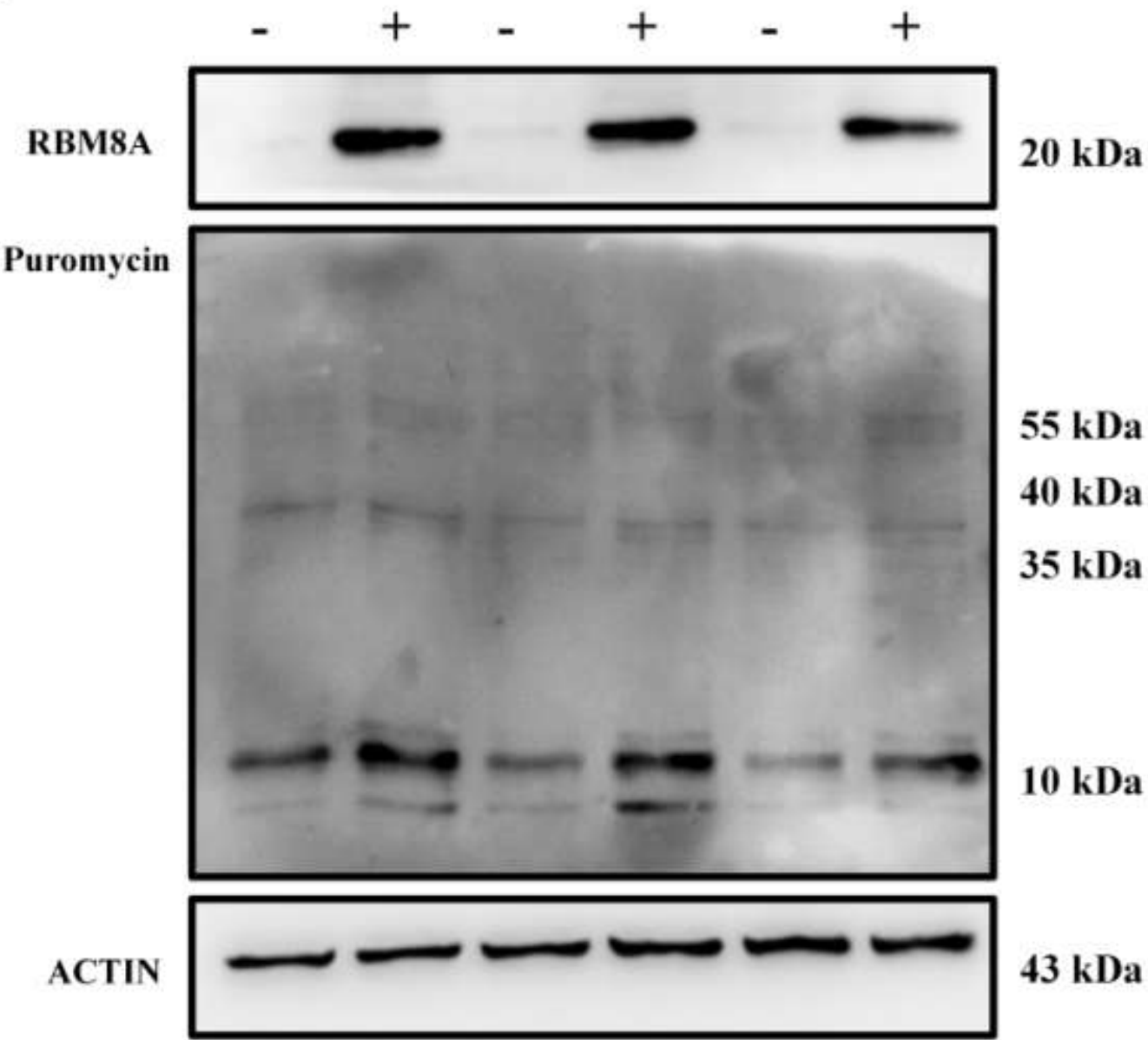


Figure S5A

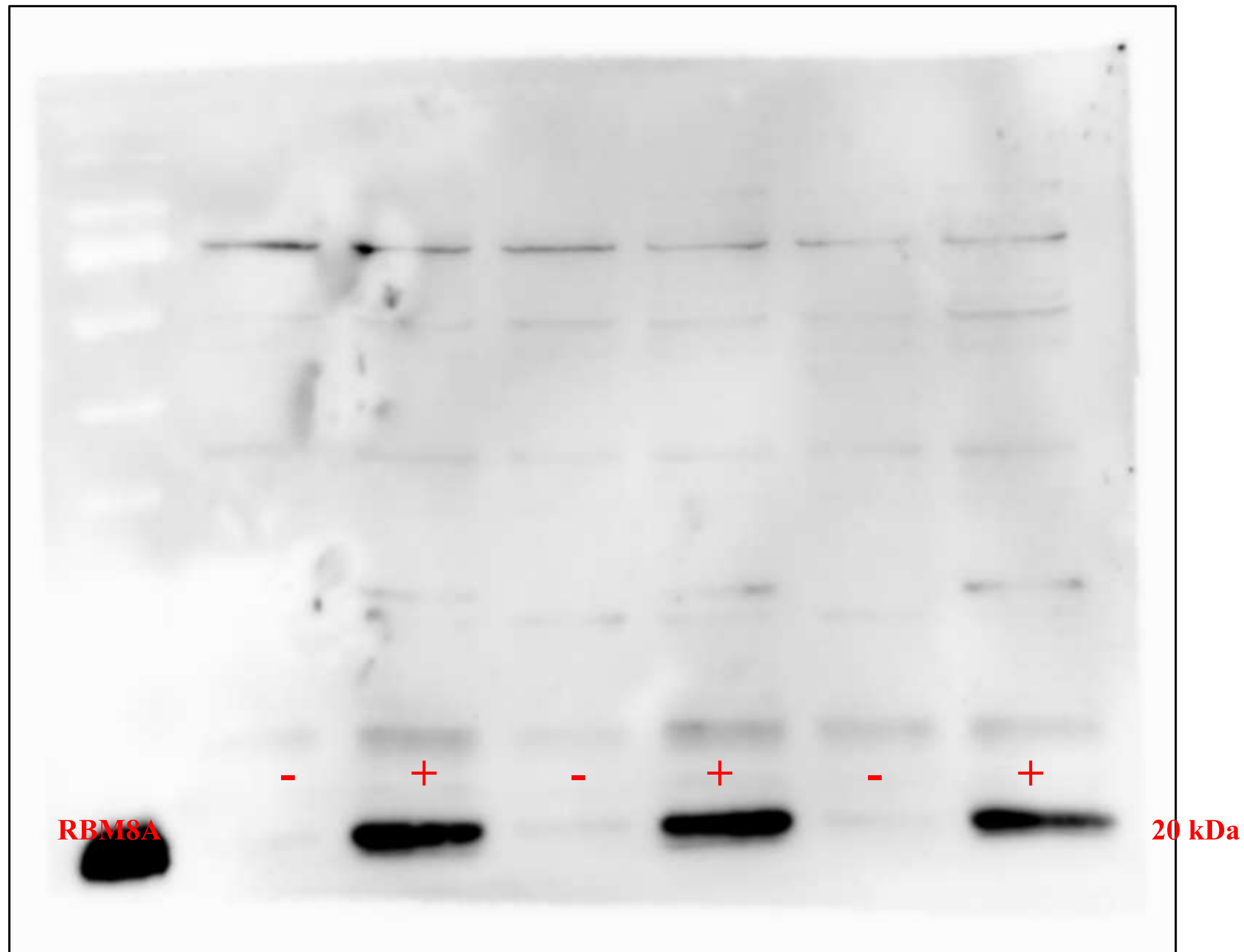


Figure S5A

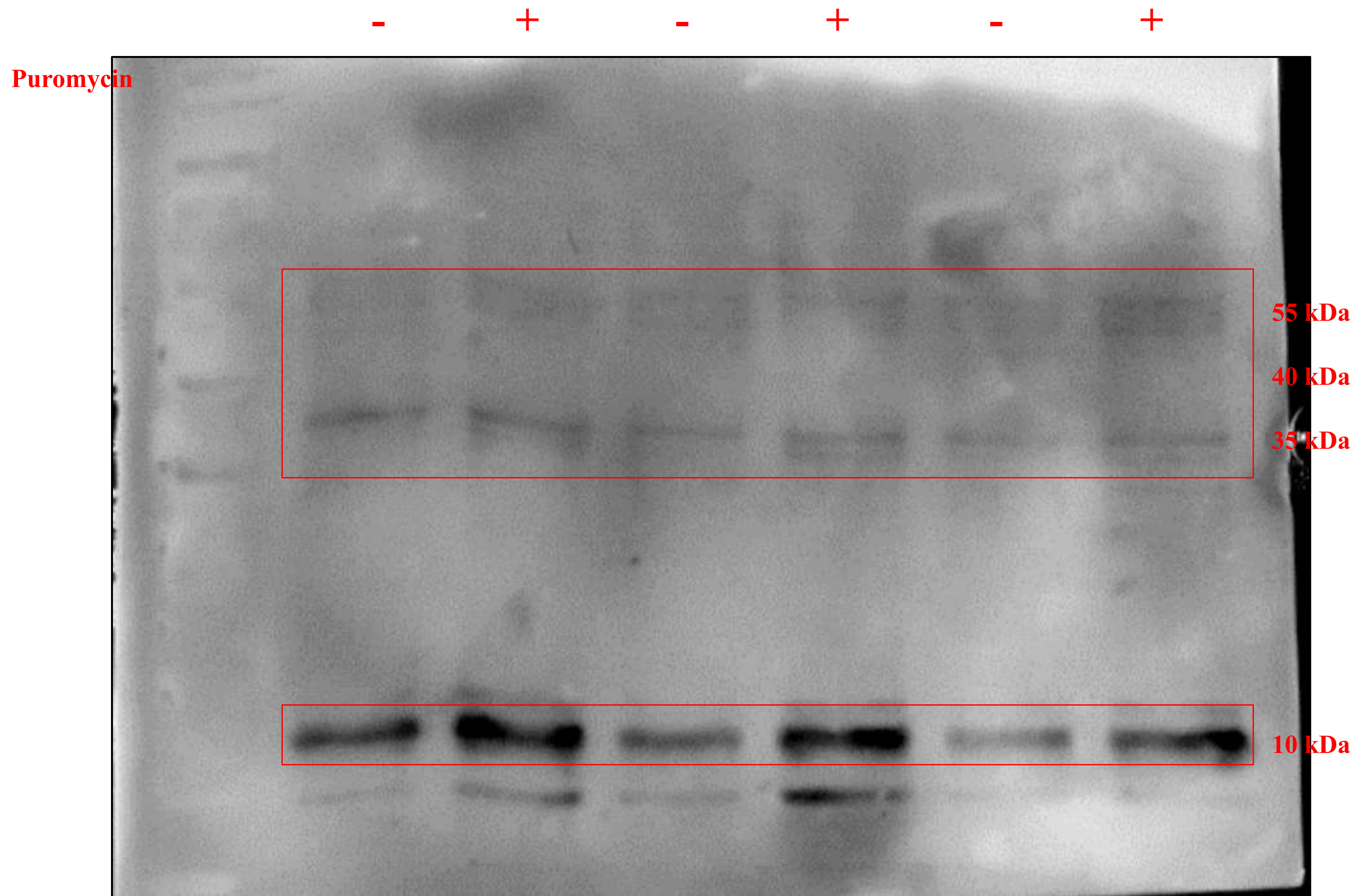


Figure S5A



Figure 6O

Western blot assay determining the expression of p16-Rb pathway-related genes following co-cultured with Bel7404-RBM8A-KD/HDAC9-OE-NC, Bel7404-RBM8A-KD/HDAC9-OE+p16-OE, MHCC97H-RBM8A-OE/HDAC9-KD/p16-KD1-NC and MHCC97H-RBM8A-OE/HDAC9-KD/p16-KD1+p16-OE cells.

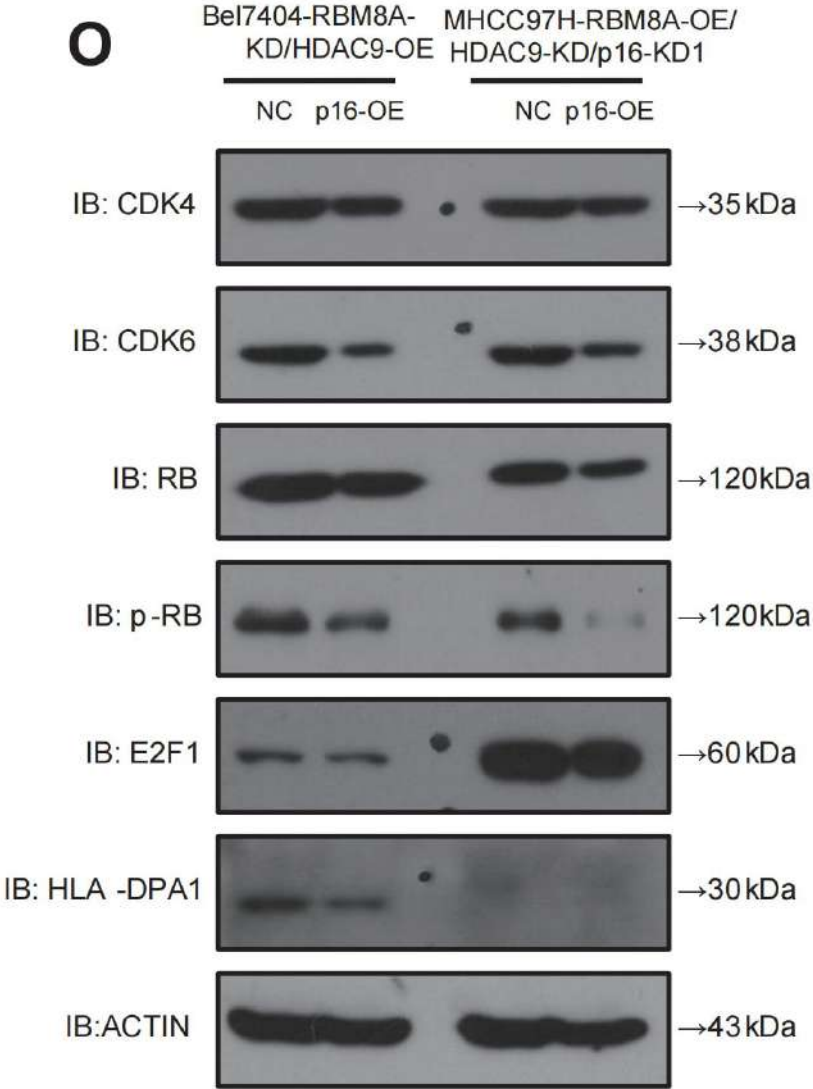


Figure 6O

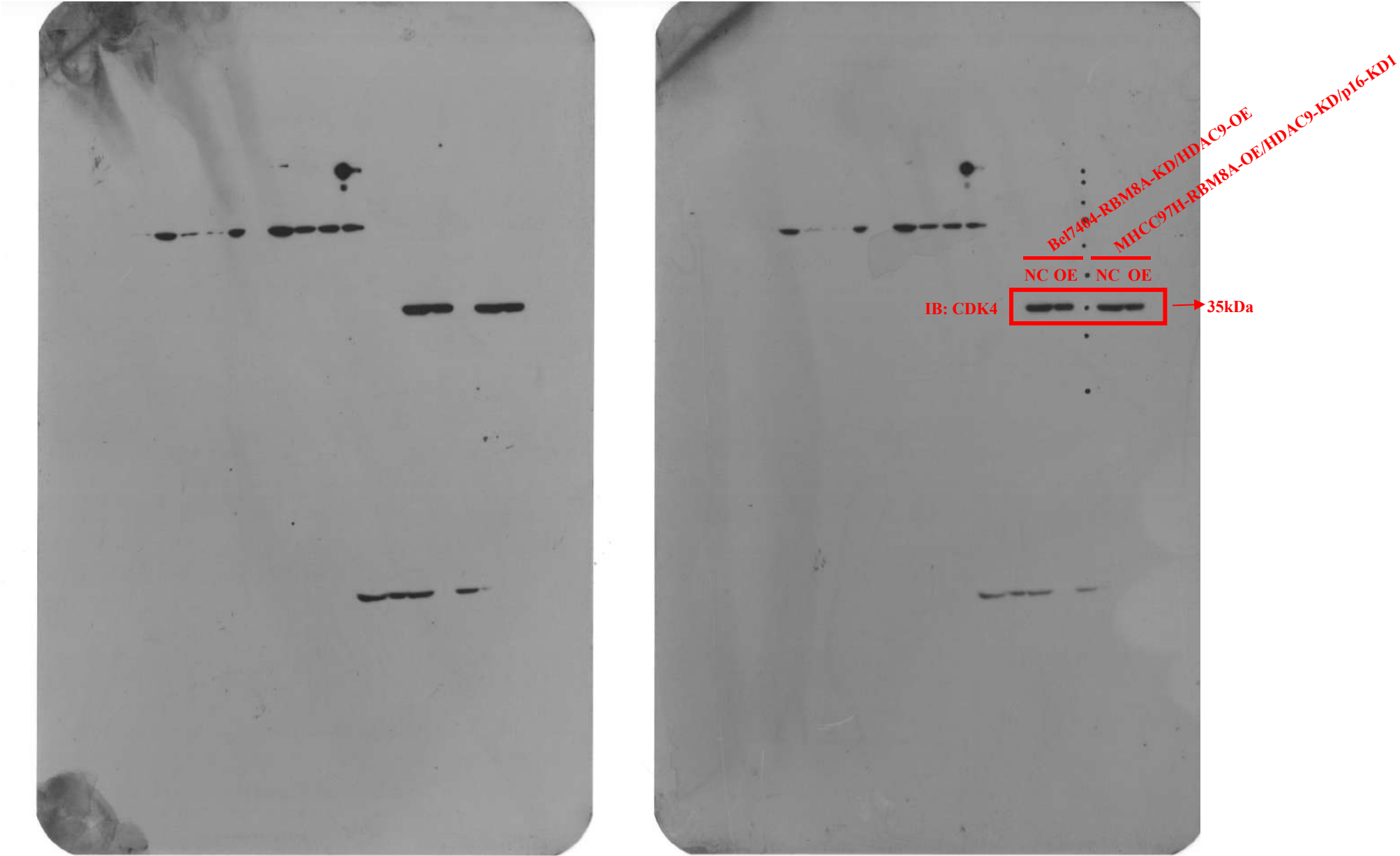


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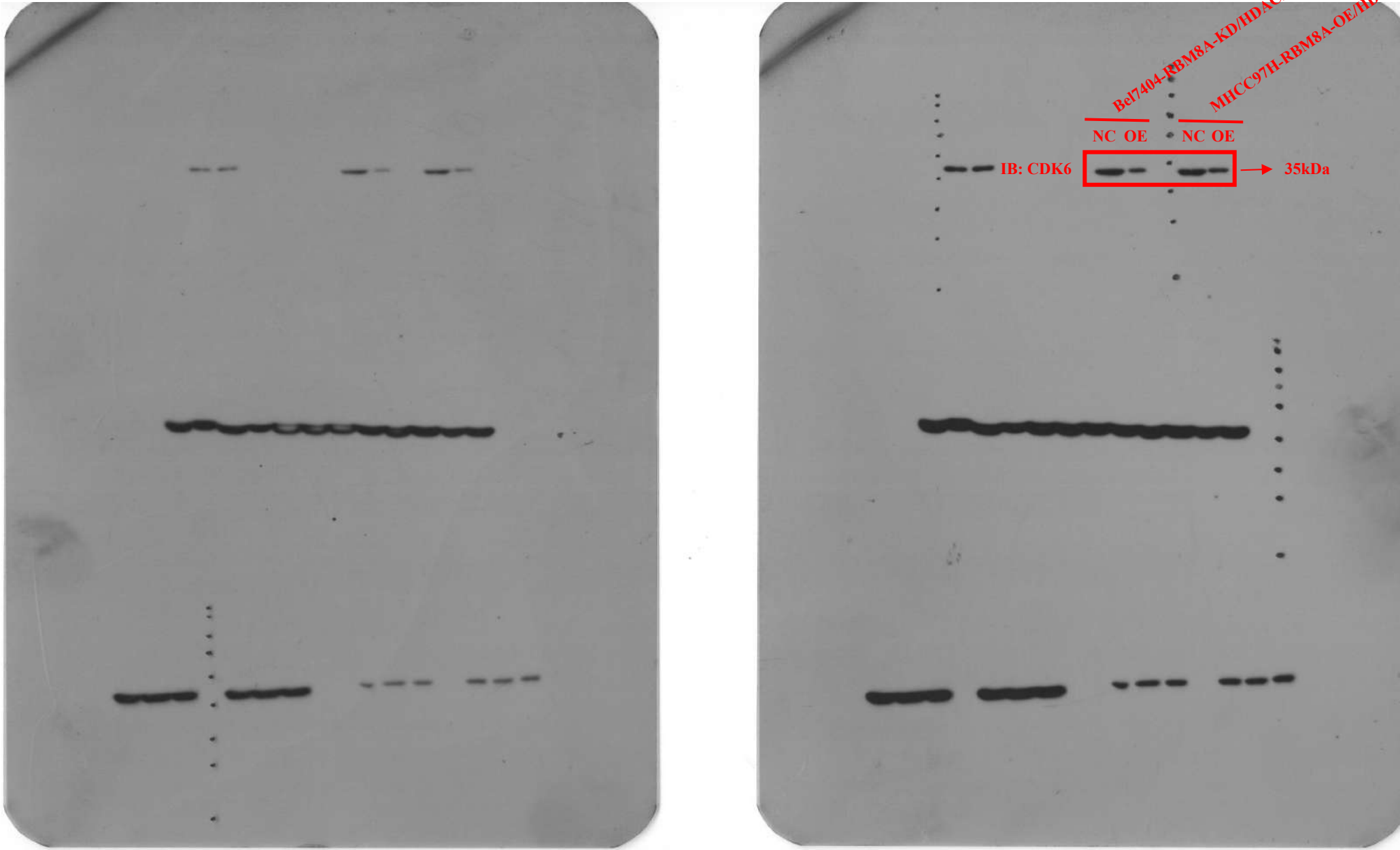


Figure 60

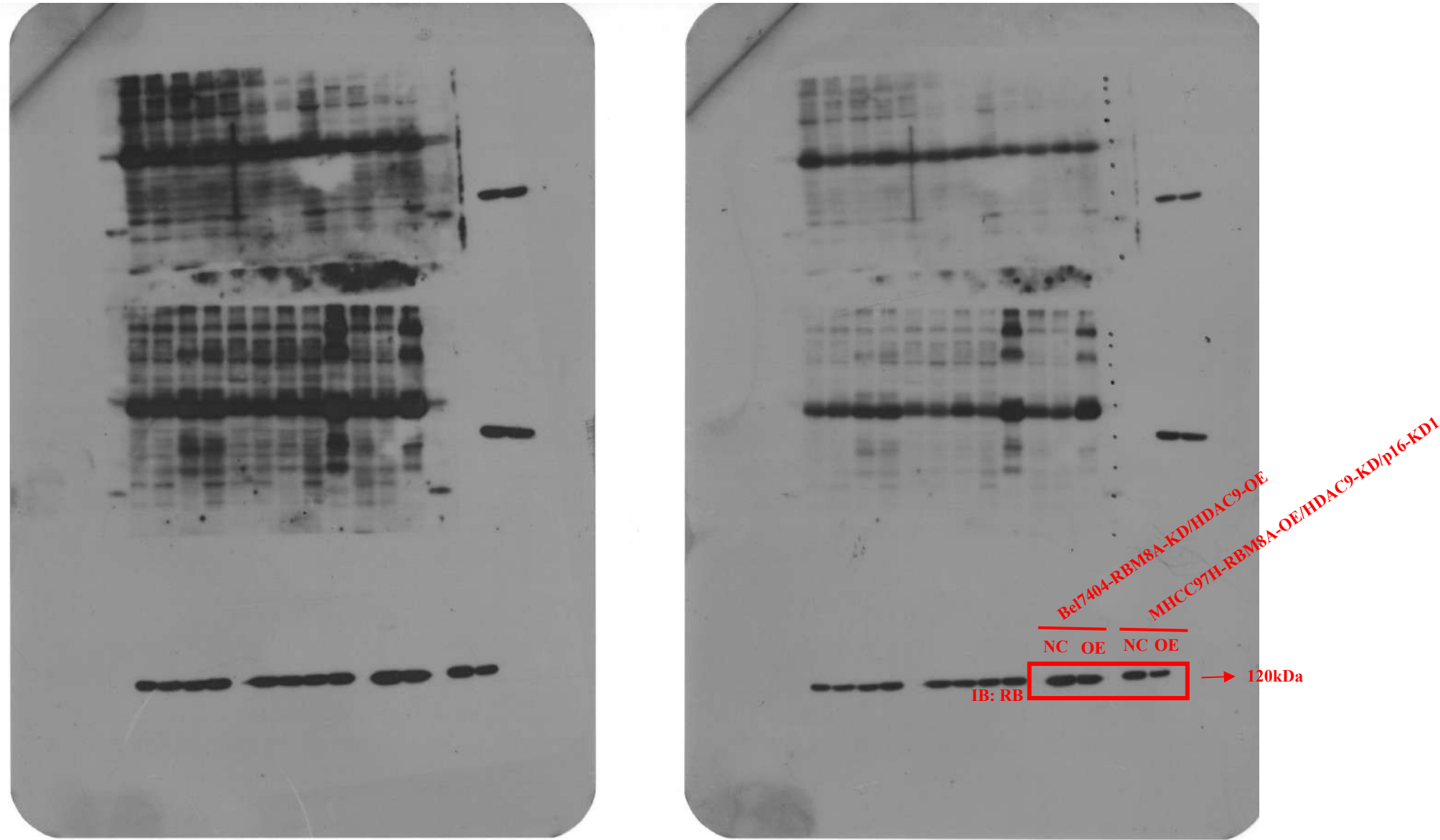


Figure 6O

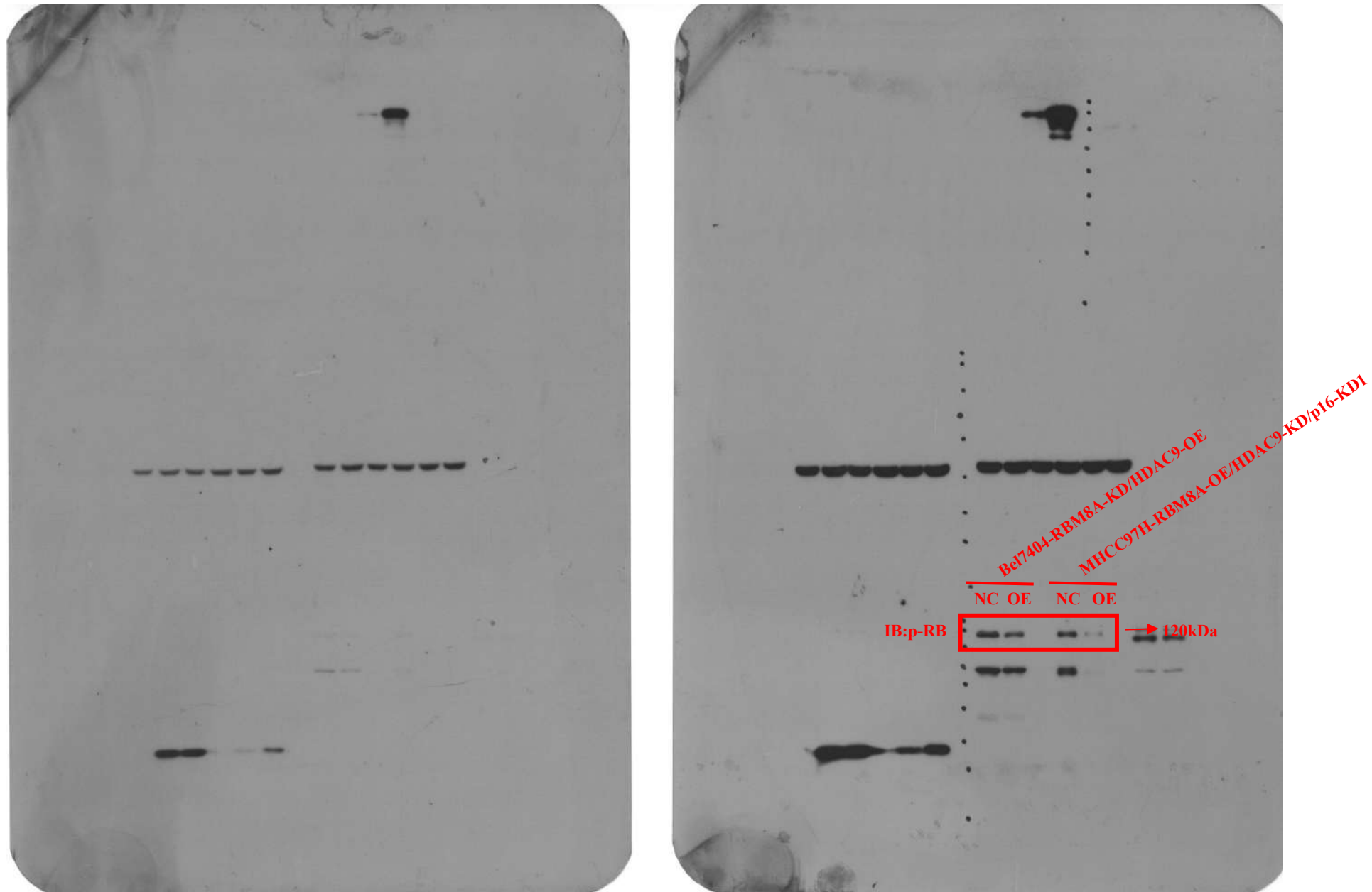


Figure 6O

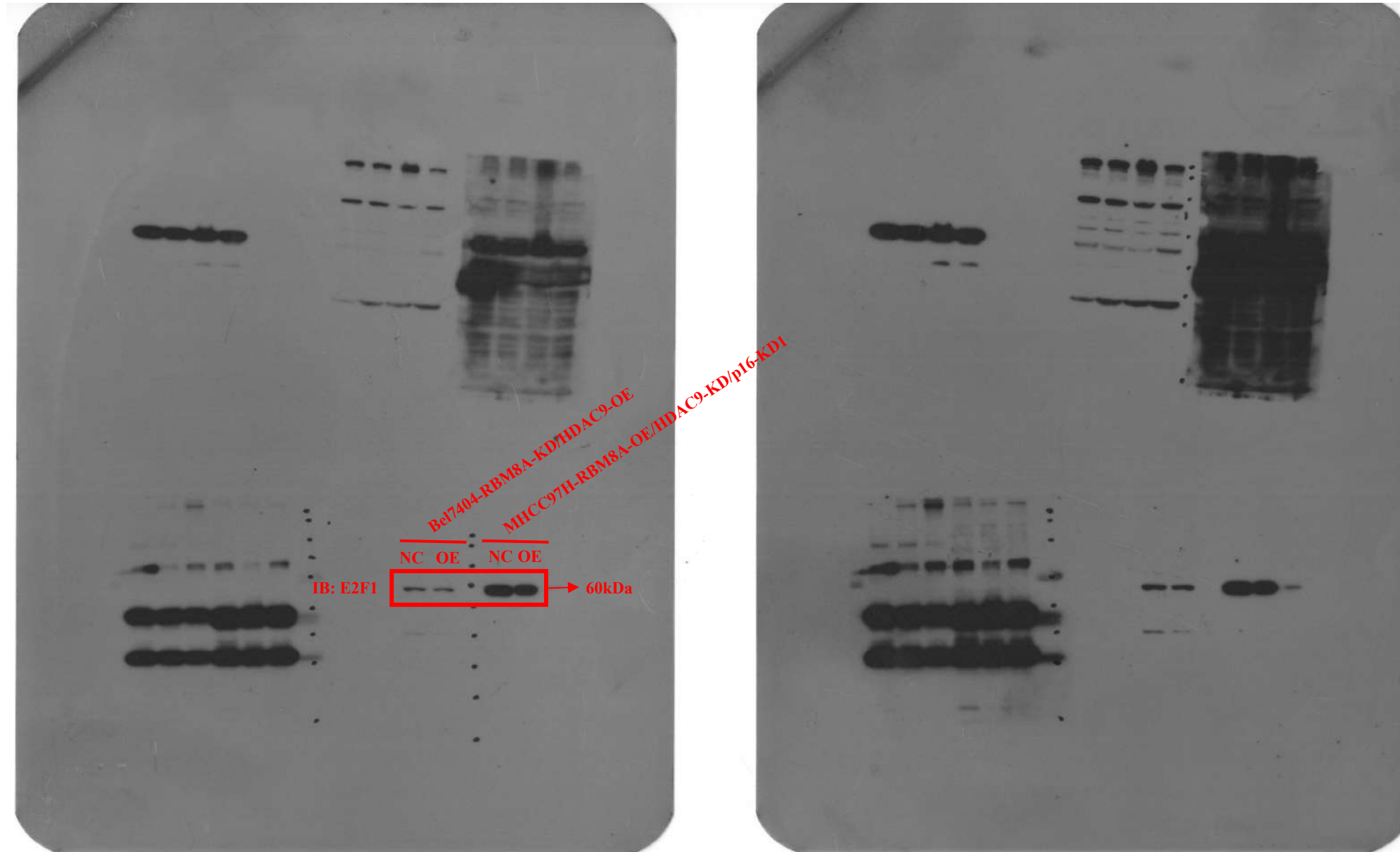


Figure 6O

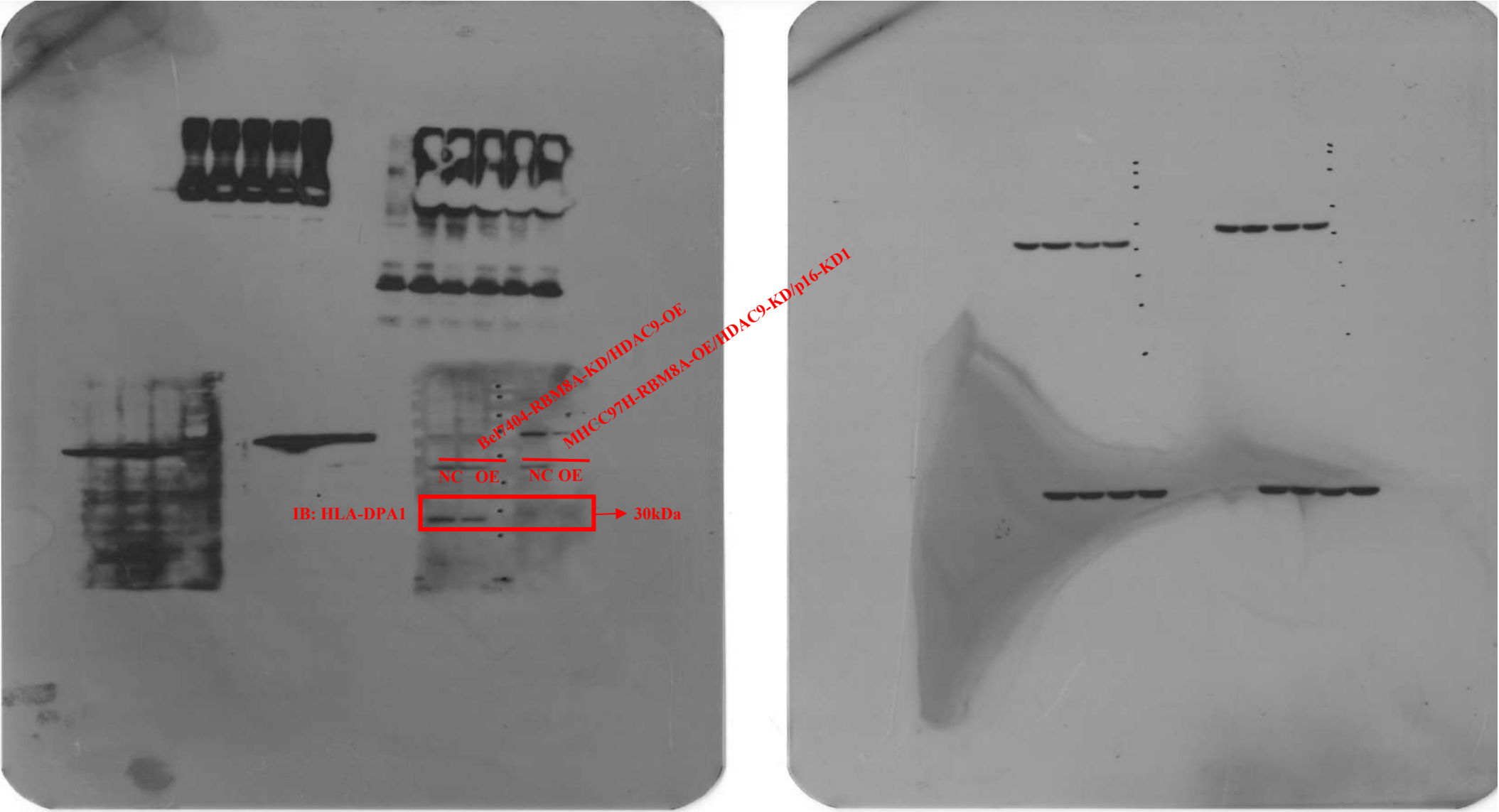
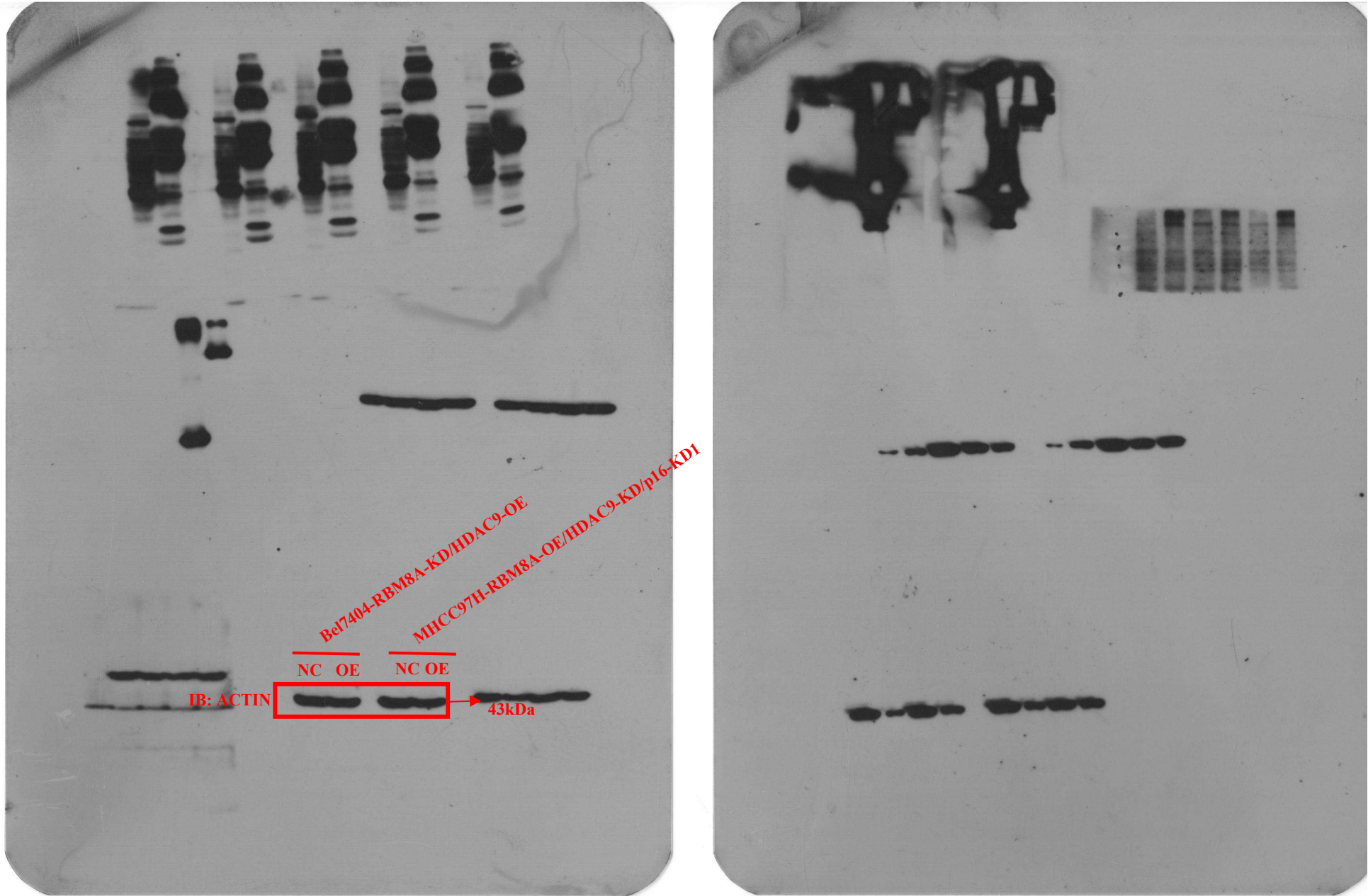
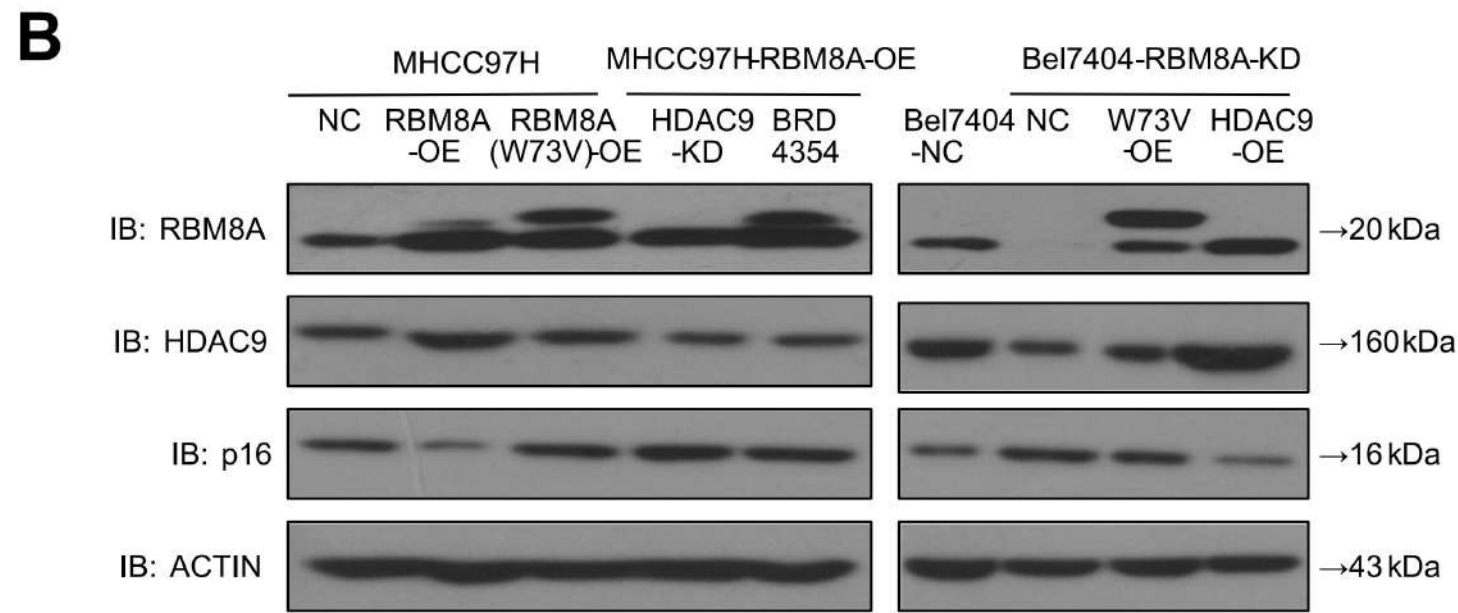


Figure 60

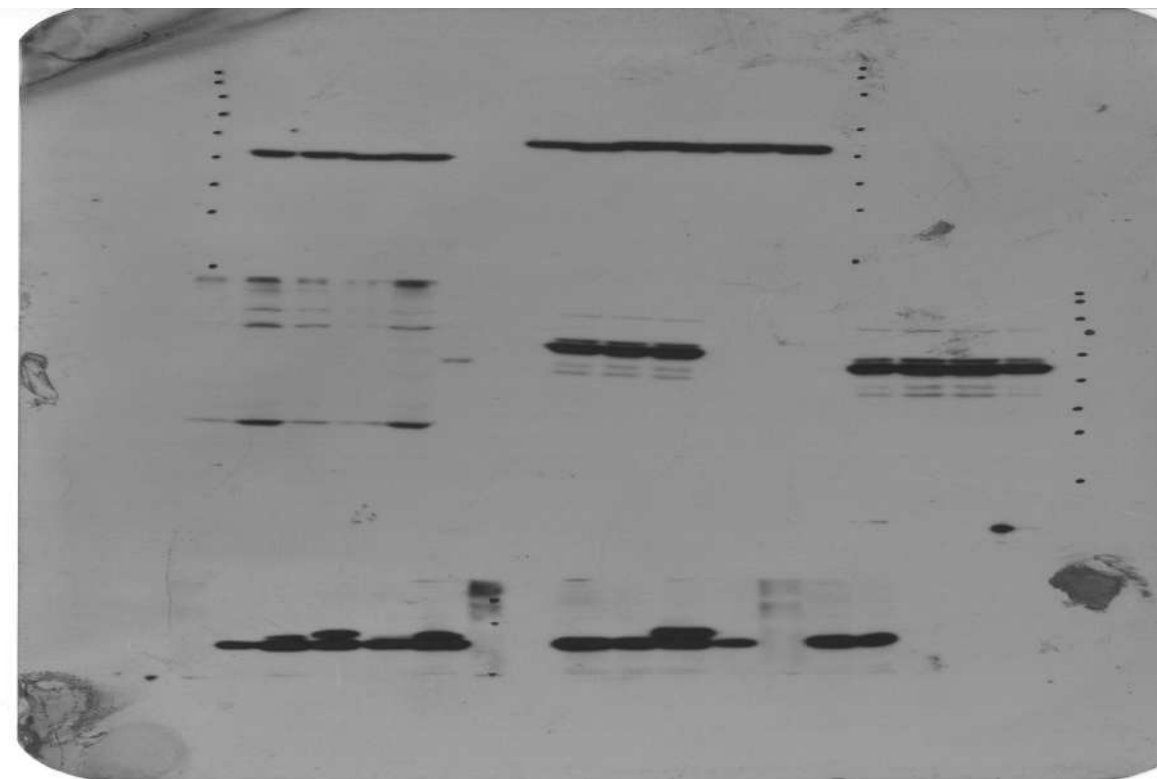
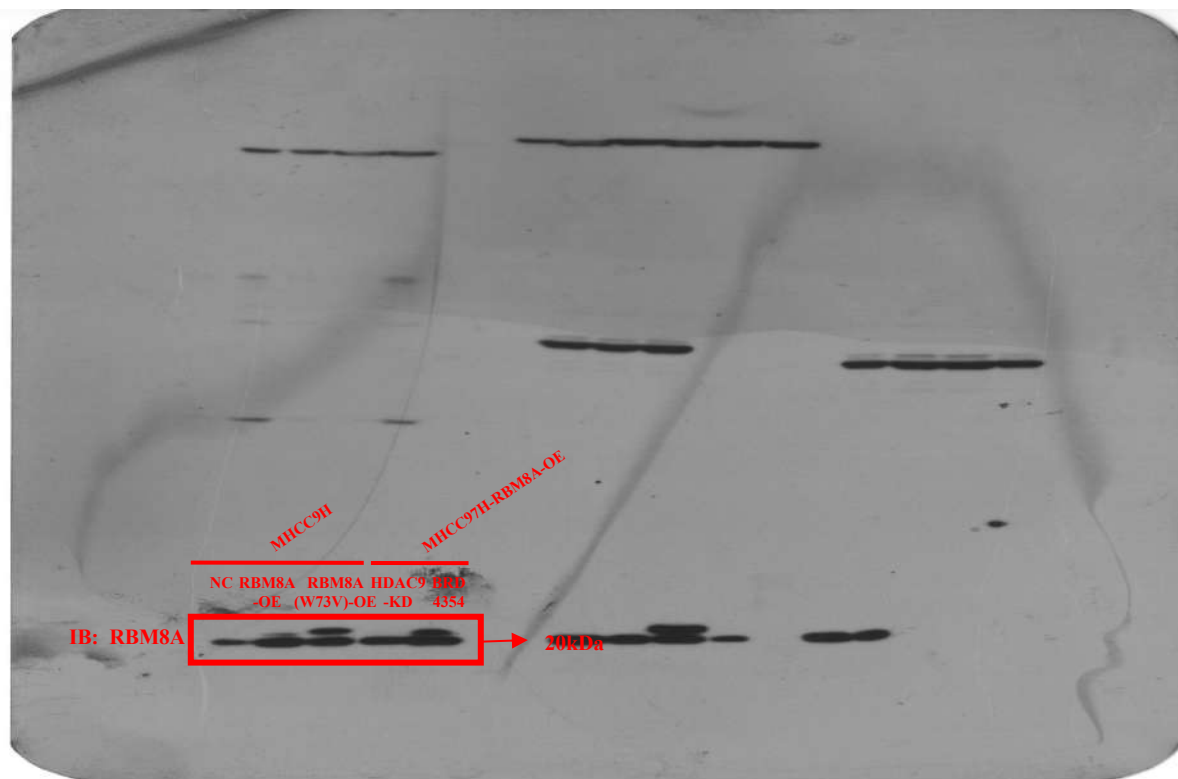


Supplement Figure 6B

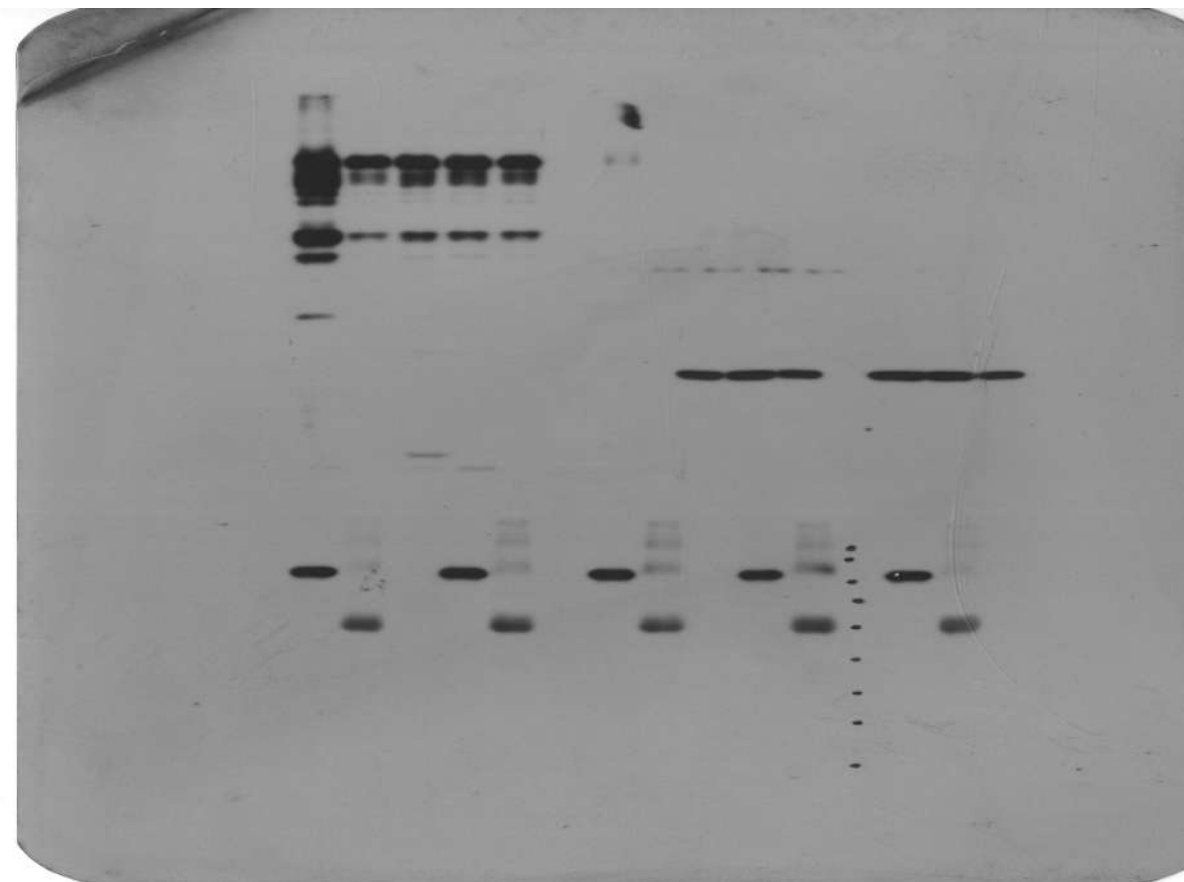
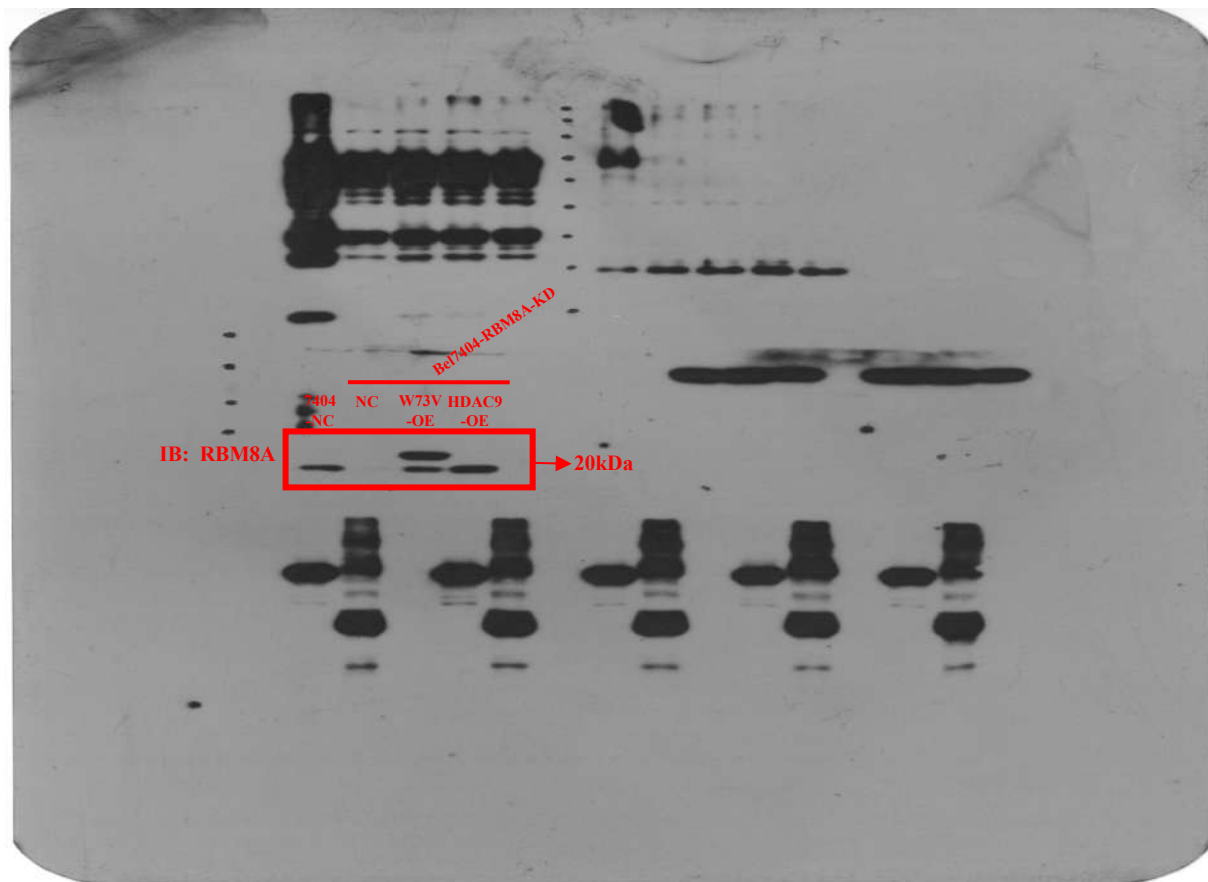
Western blot detecting the p16 mRNA and protein expressions in MHCC97H-NC, MHCC97H-RBM8A(W73V)-OE, MHCC97H-RBM8A-OE, MHCC97H-RBM8A-OE-HDAC9-OE, MHCC97H-RBM8A-OE-BRD 4354, 7404-NC, 7404-RBM8A-KD, 7404-RBM8A-KD-RBM8A(W73V)-OE, 7404-RBM8A-KD-HDAC9-OE cells.



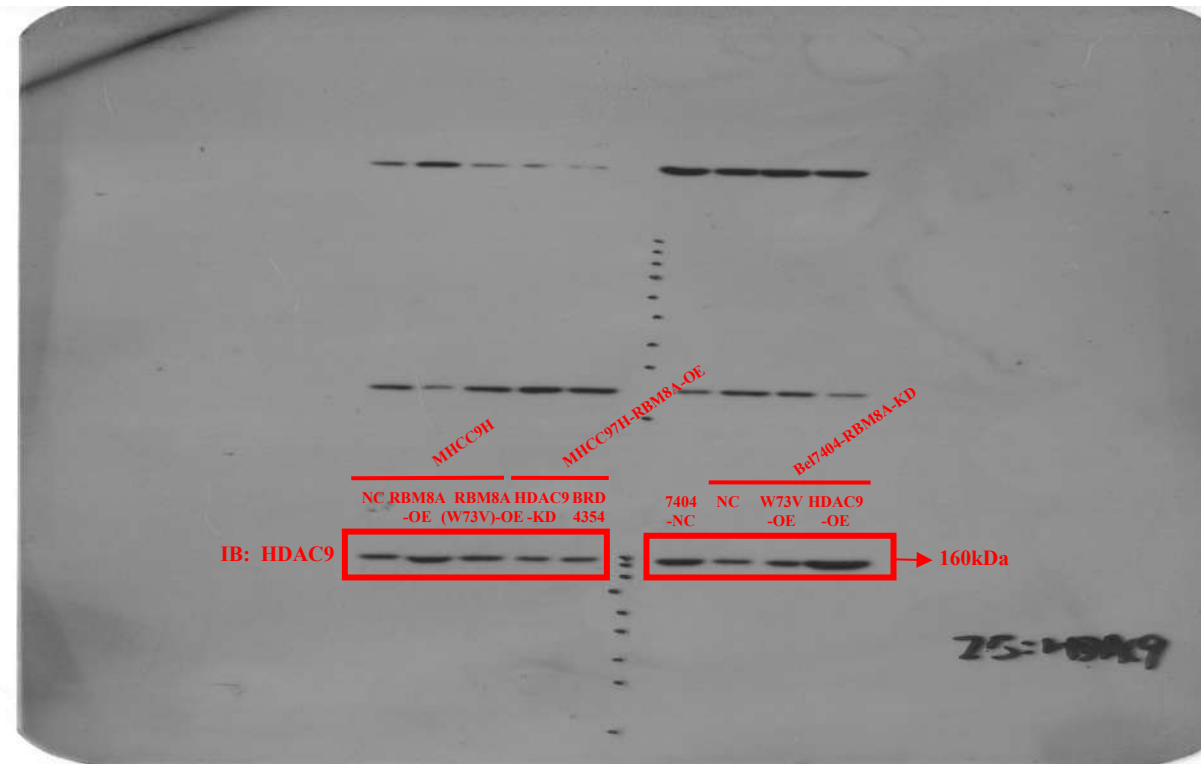
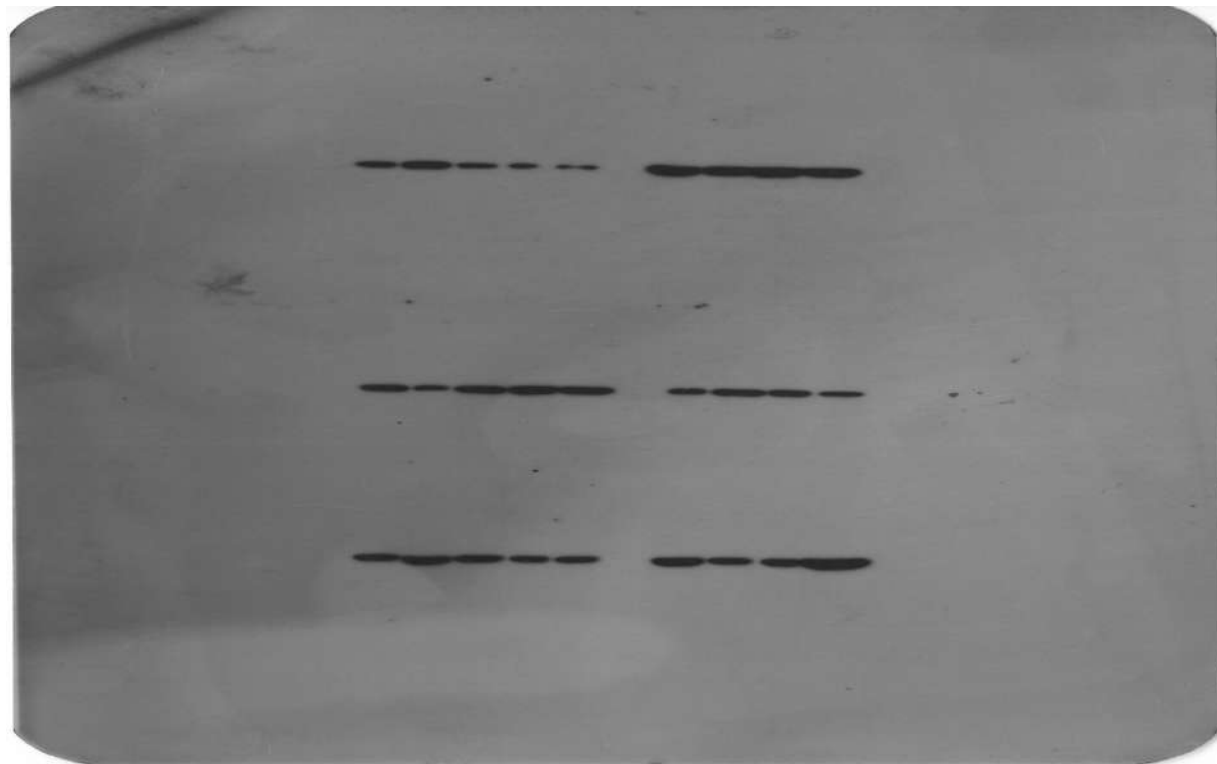
Supplement Figure 6B



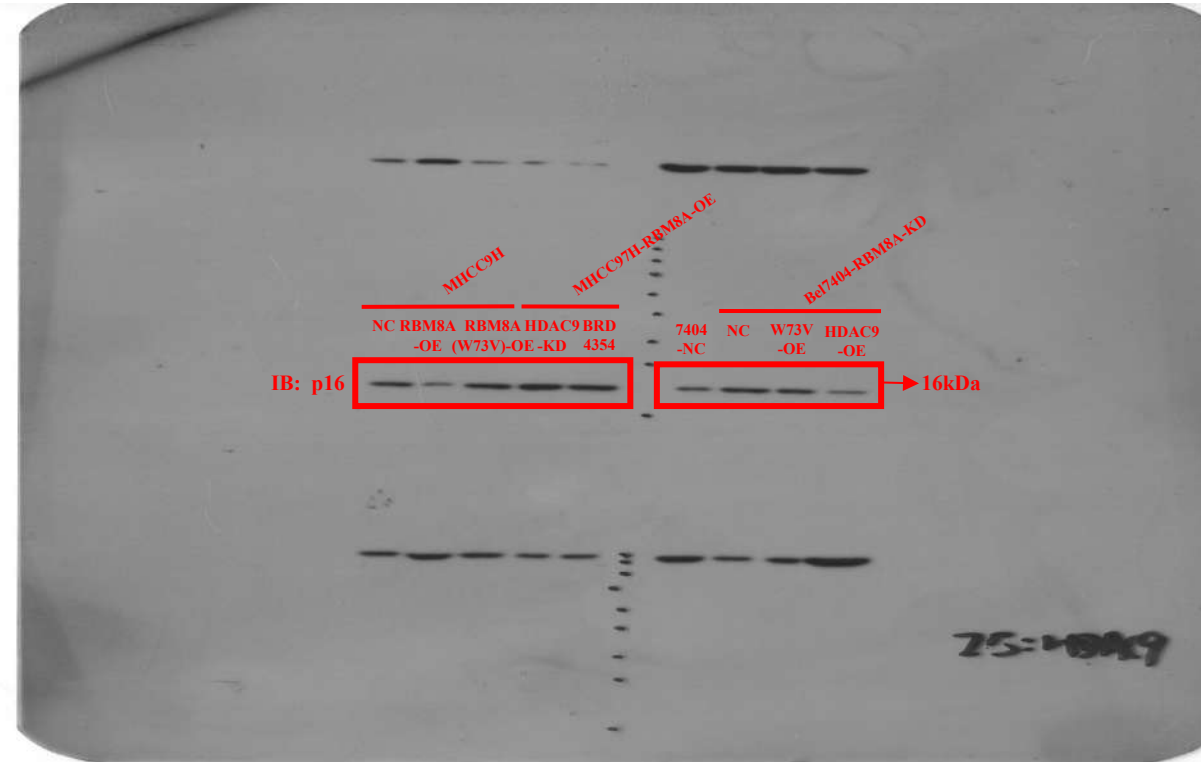
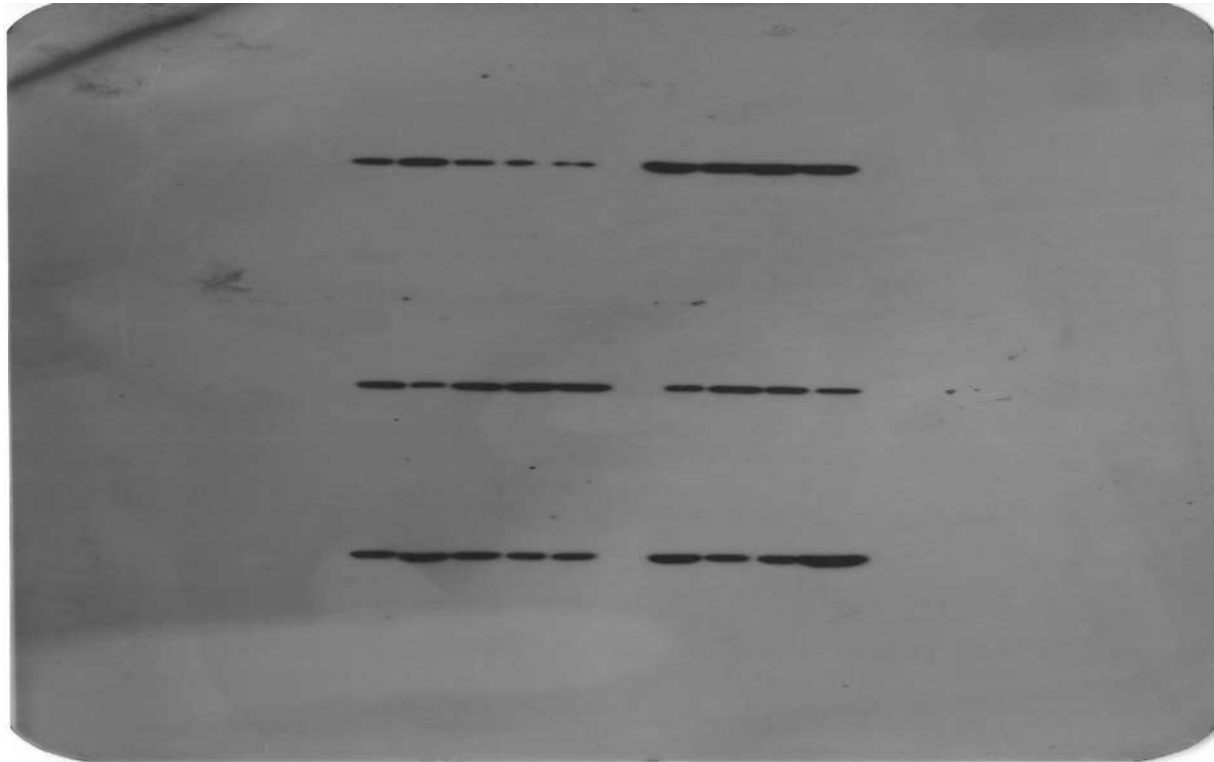
Supplement Figure 6B



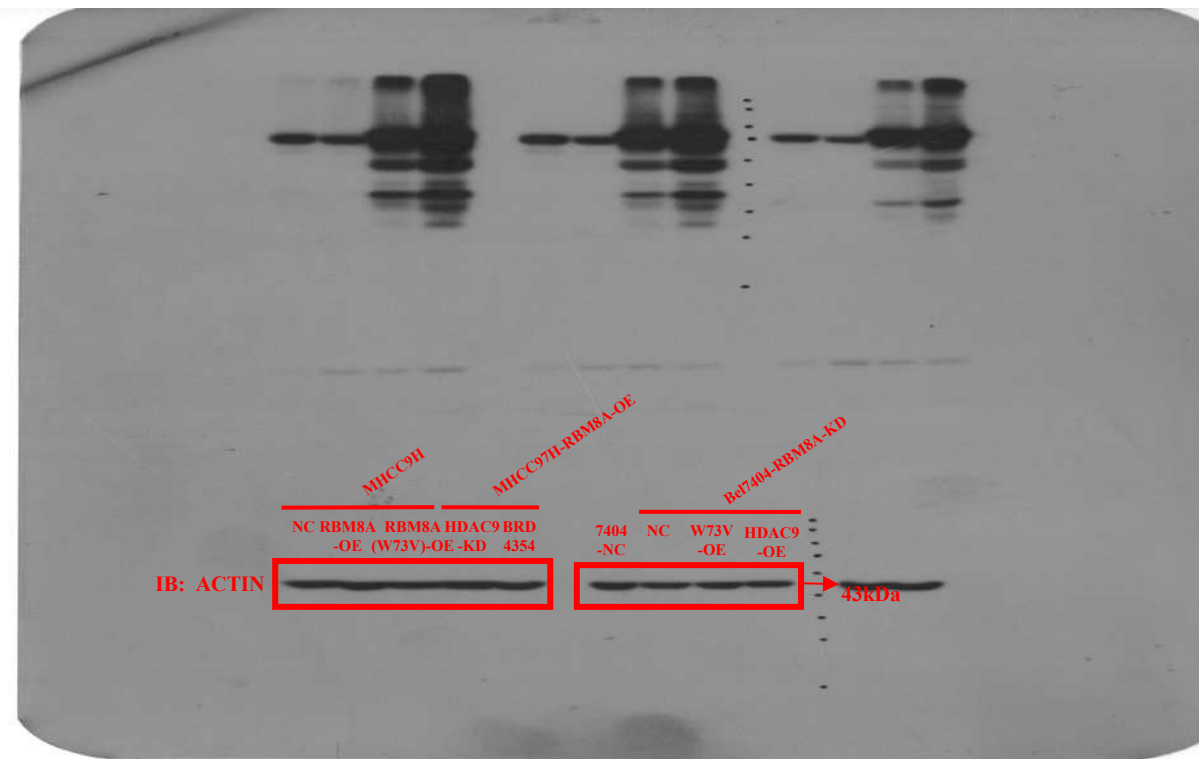
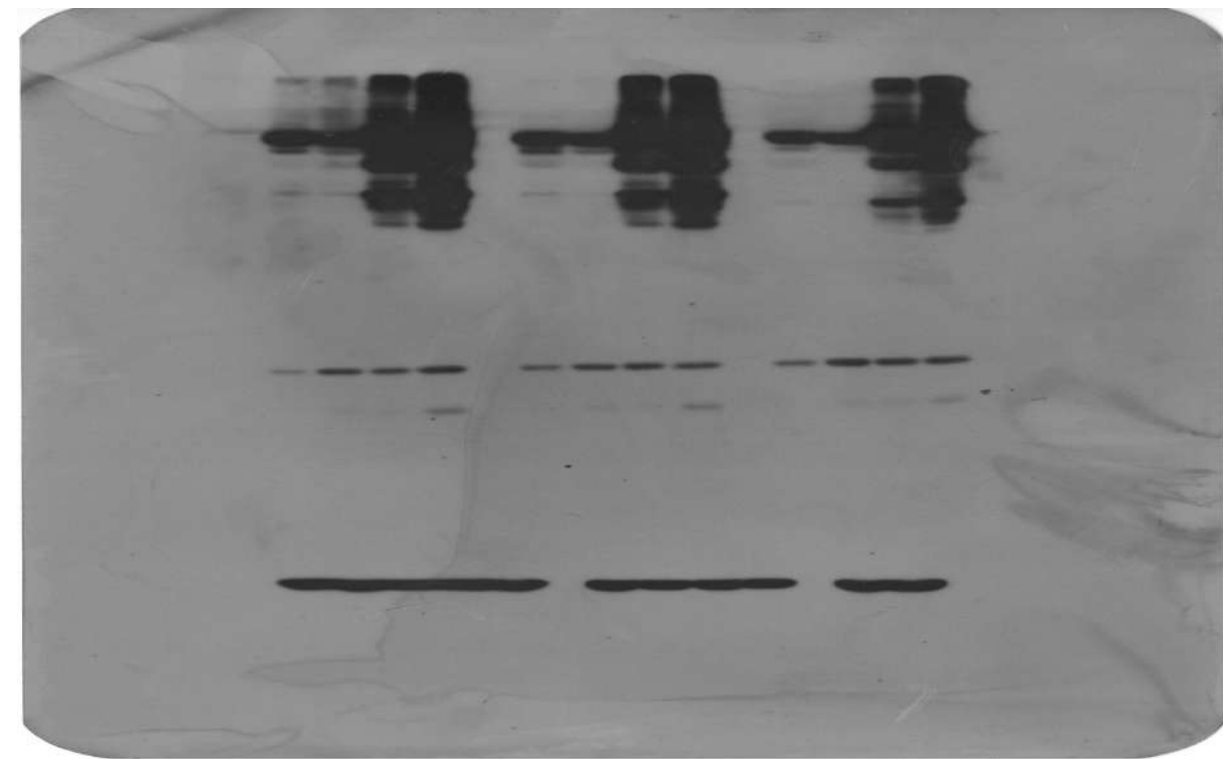
Supplement Figure 6B



Supplement Figure 6B

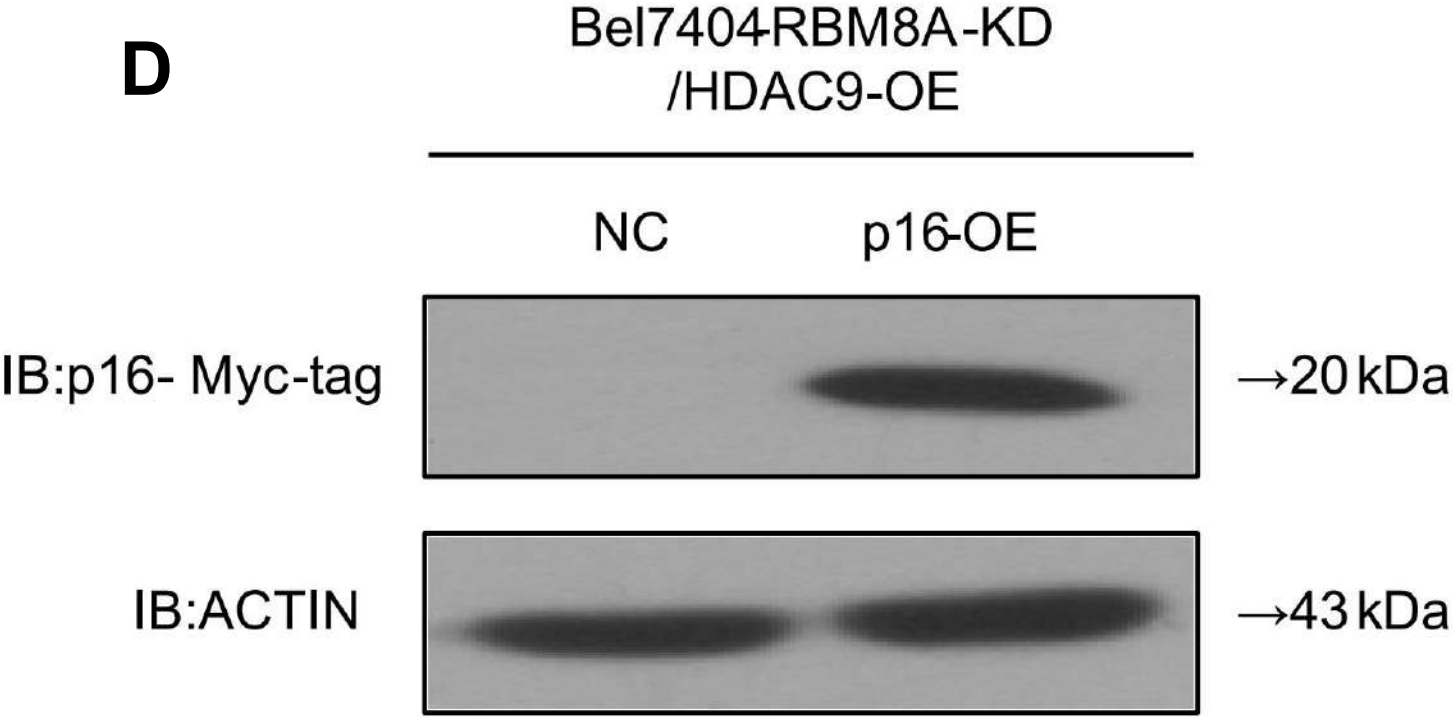


Supplement Figure 6B

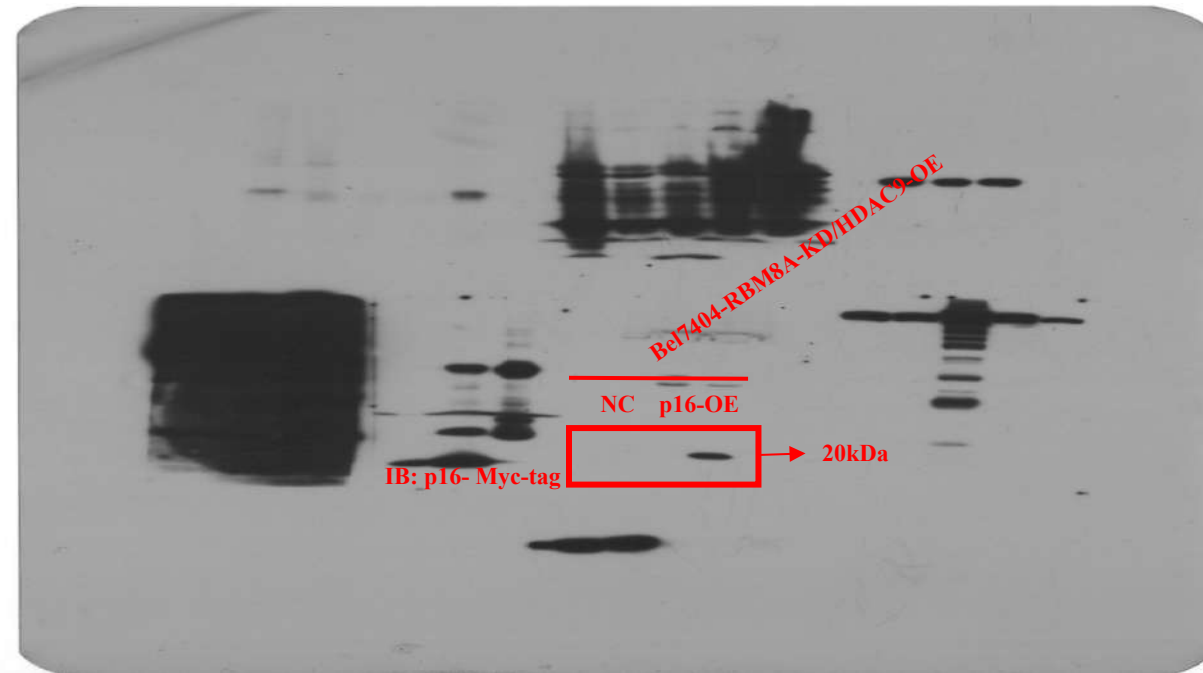


Supplement Figure 6D

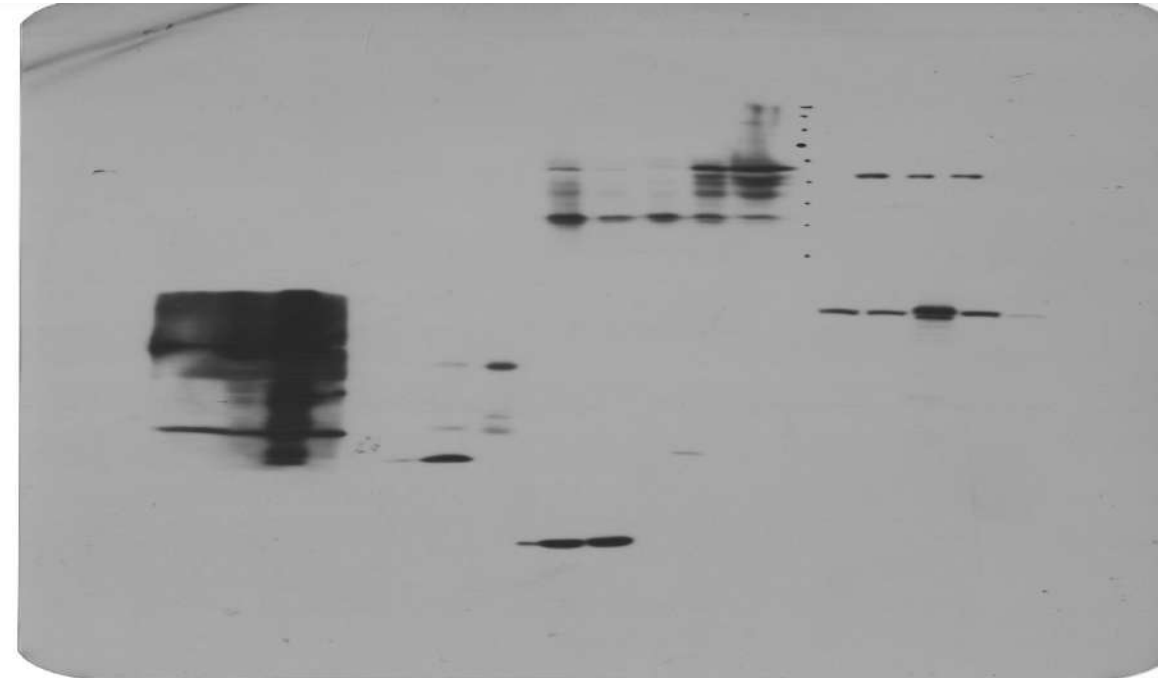
Western blot detecting the p16 mRNA and protein expressions in Bel7404-RBM8A-KD/HDAC9-OE-NC and Bel7404-RBM8A-KD/HDAC9-OE+p16-OE cells.



Supplement Figure 6D



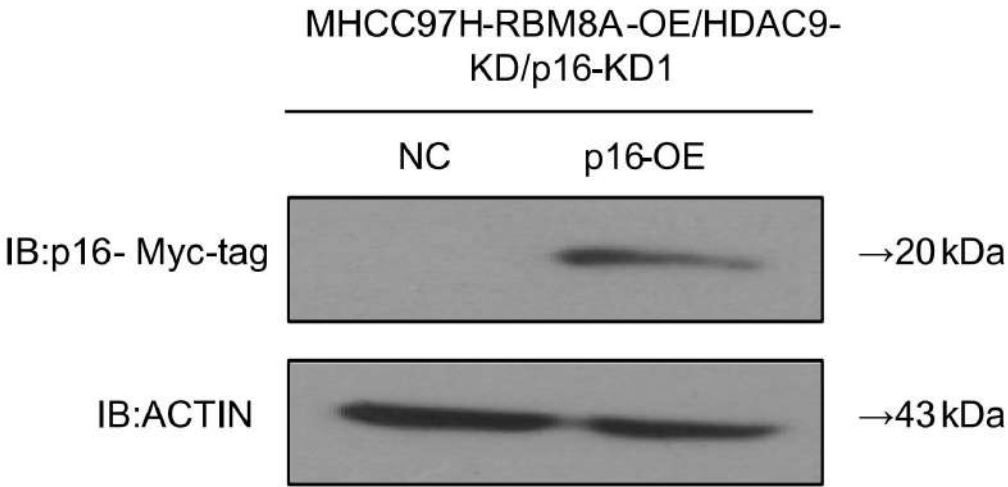
Supplement Figure 6D



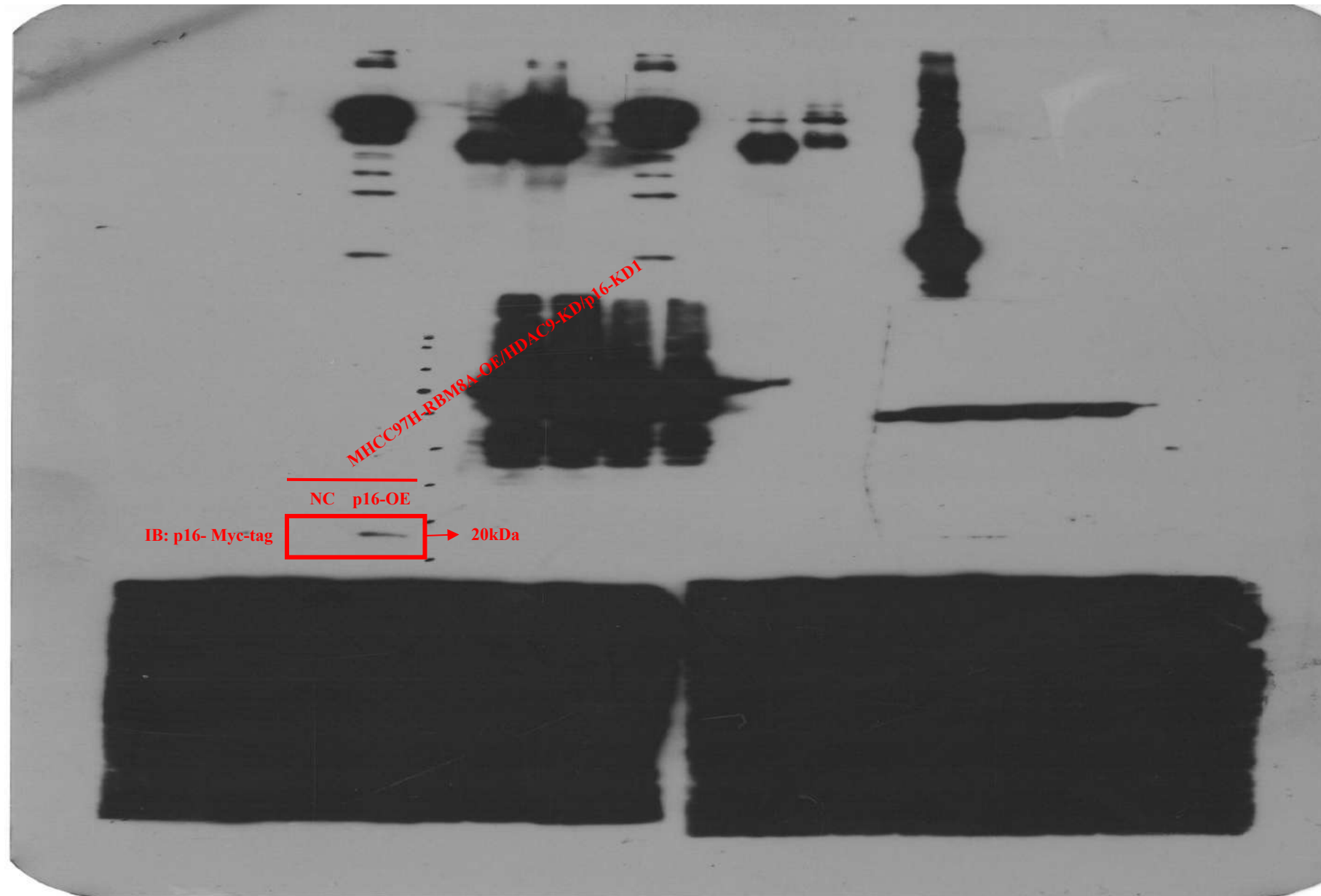
Supplement Figure 6G

G

Western blot detecting the p16 mRNA and protein expression in MHCC97H-RBM8A-OE/HDAC9-KD/p16-KD1-NC and MHCC97H-RBM8A-OE/HDAC9-KD/p16-KD1+p16-OE NC cells.



Supplement Figure 6D



Supplement Figure 6D

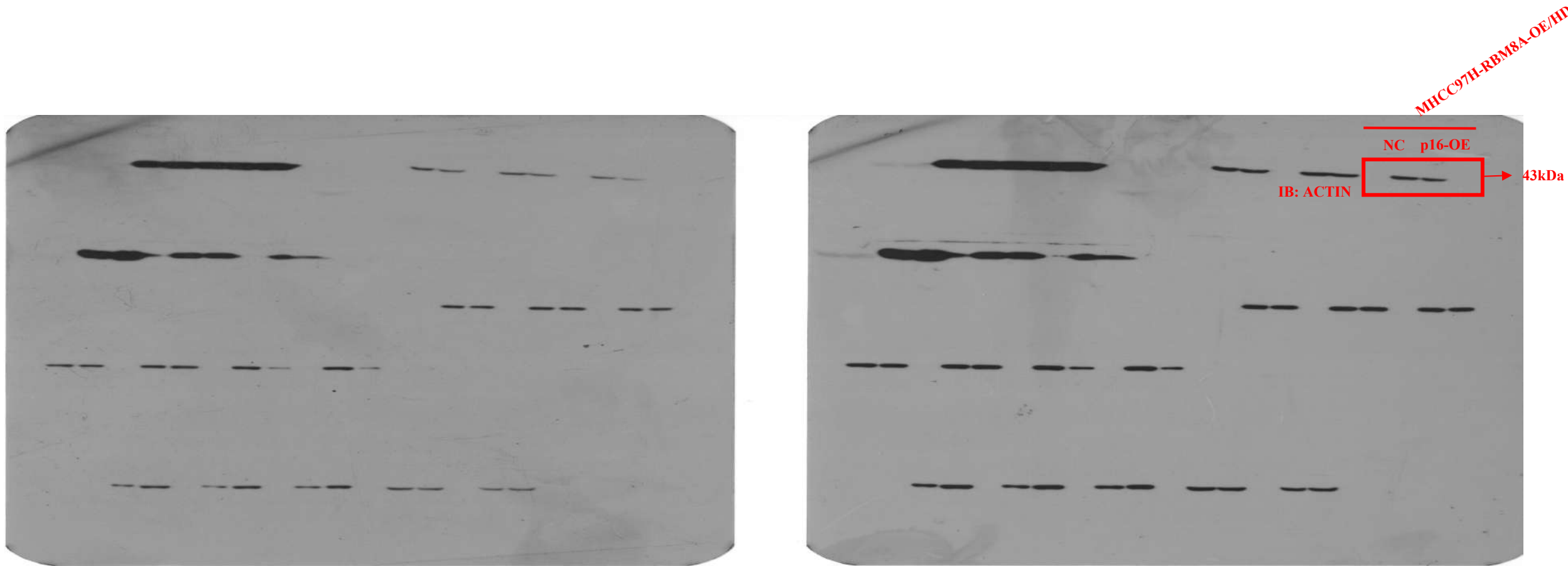


Figure 7H

Western blot analyses of the expression of ABCG2 and P-GP in parental and apatinib-resistant cell lines.

H

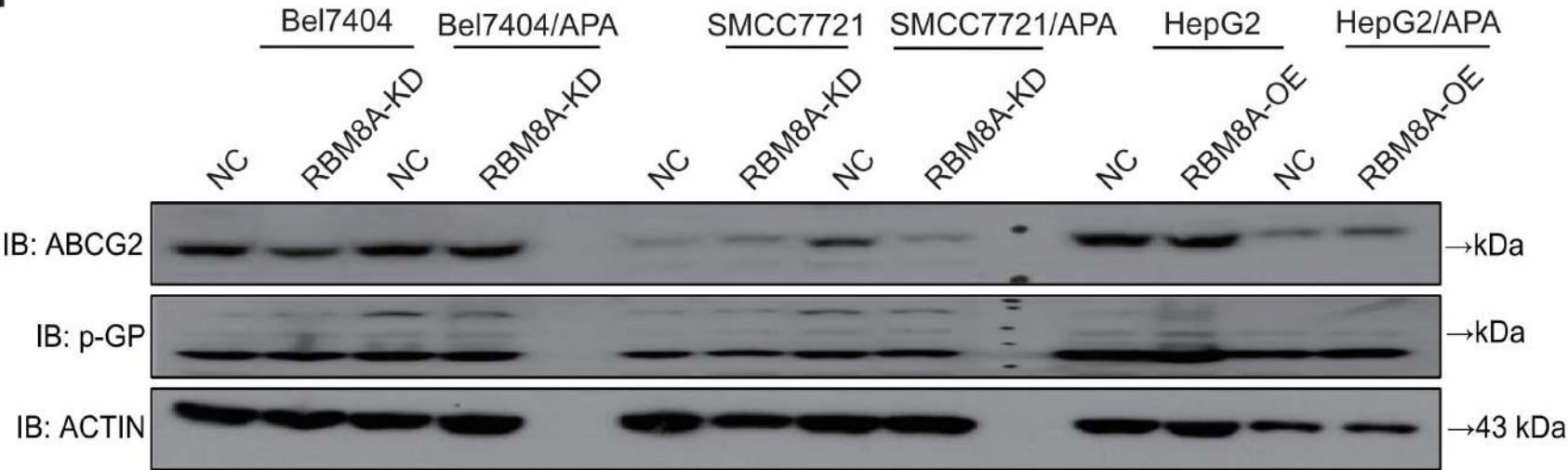


Figure 7H

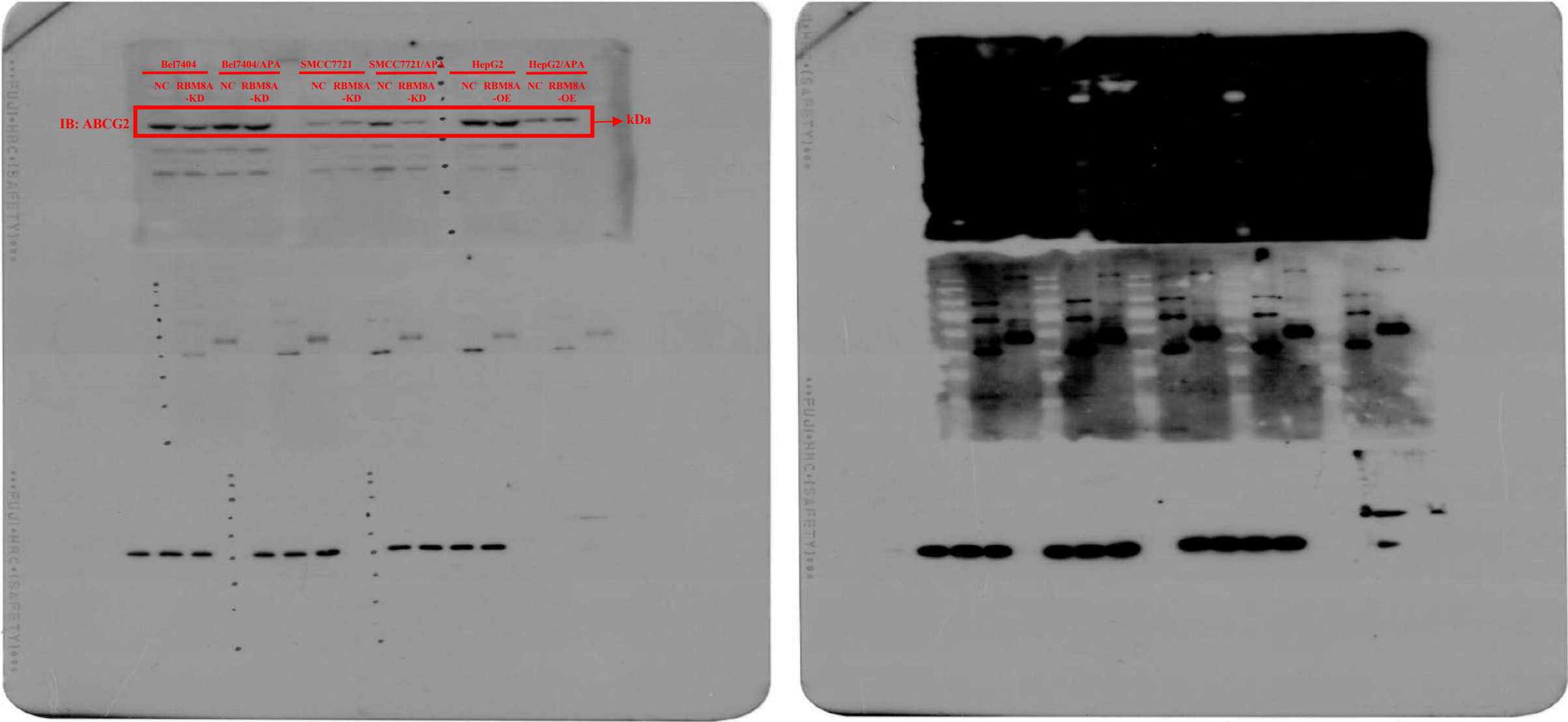


Figure 7H

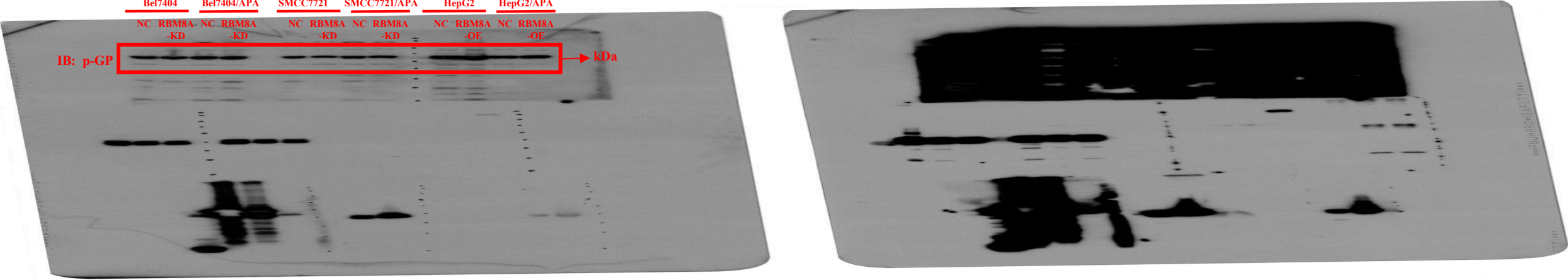
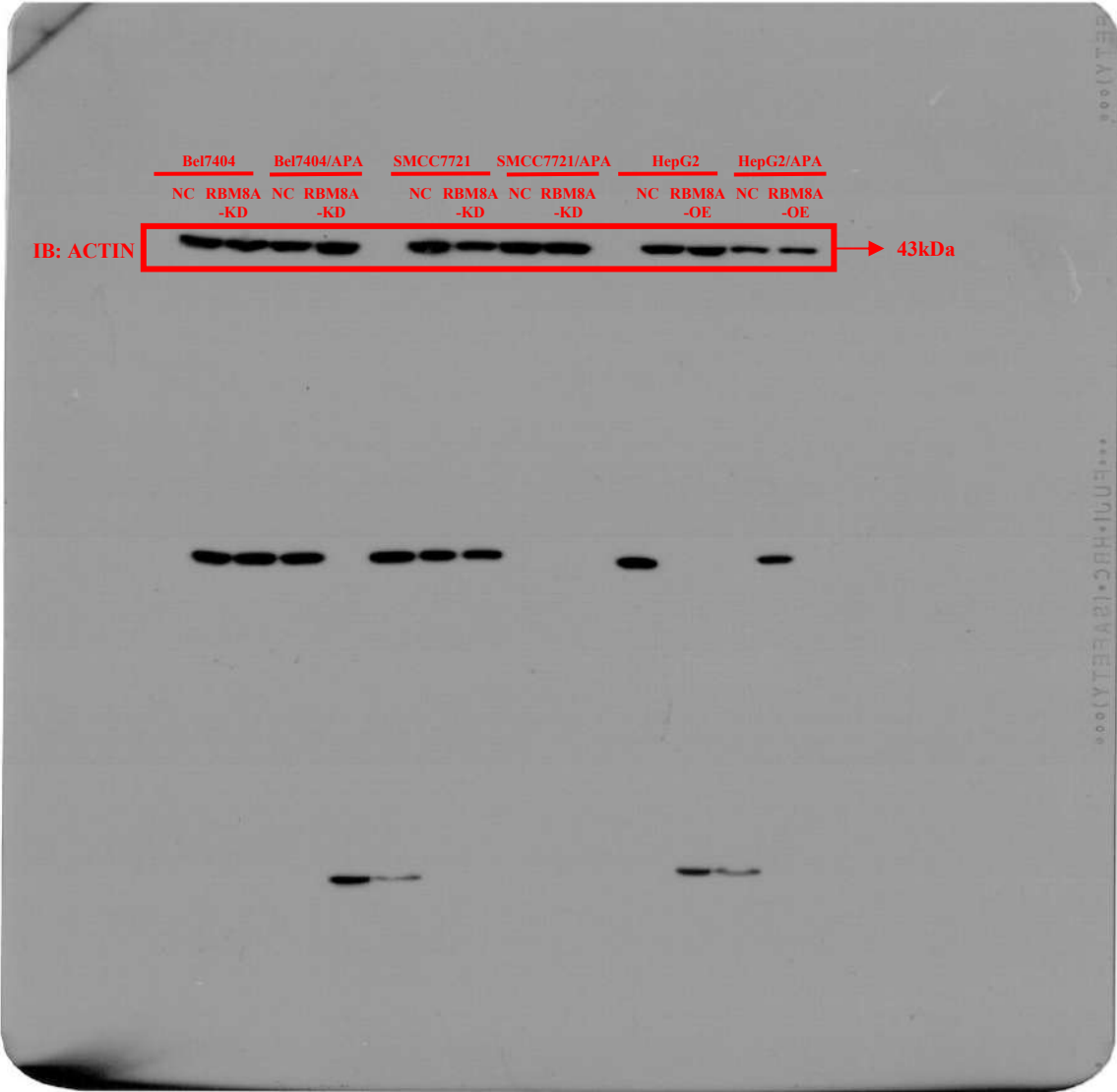
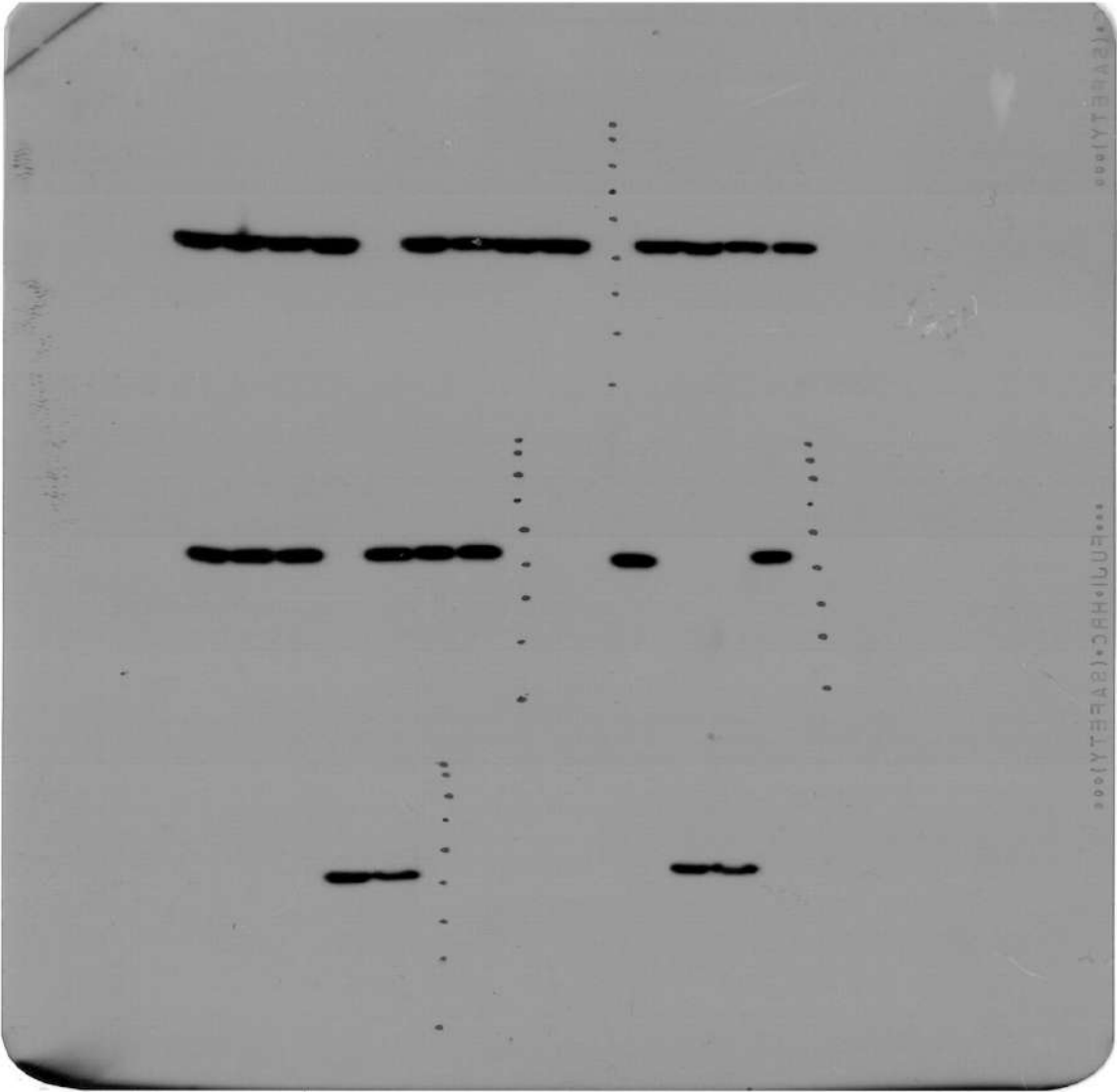
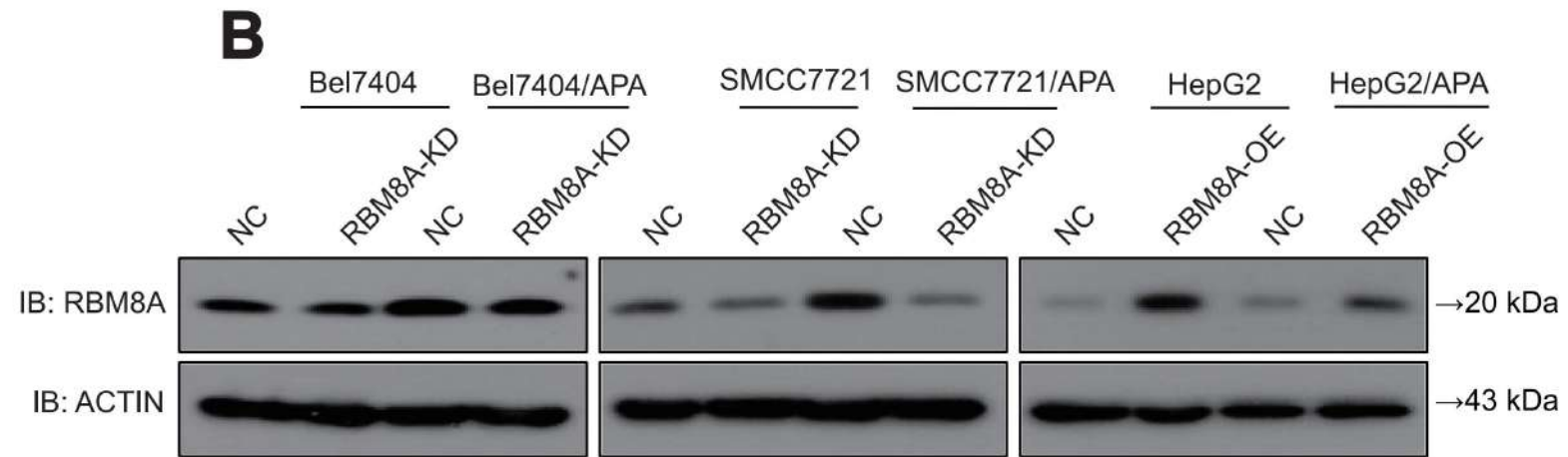


Figure 7H

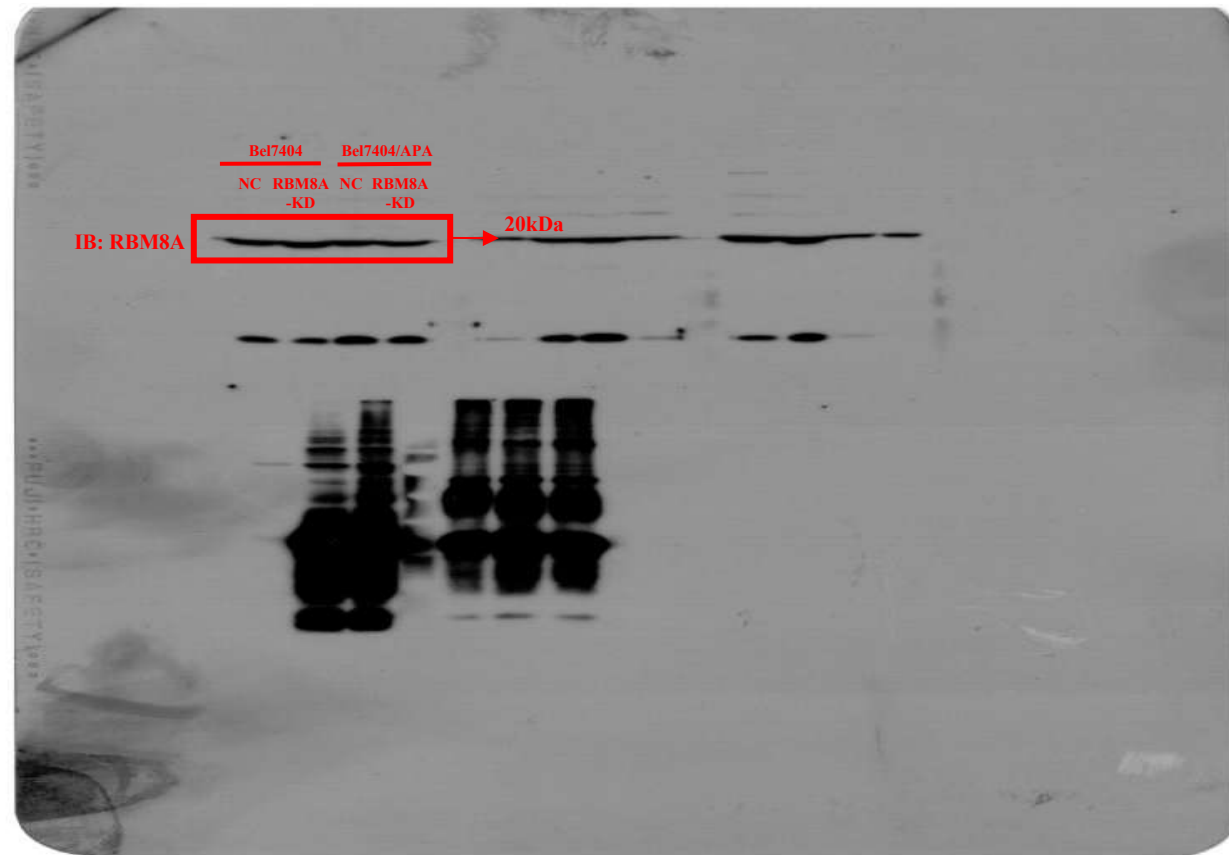
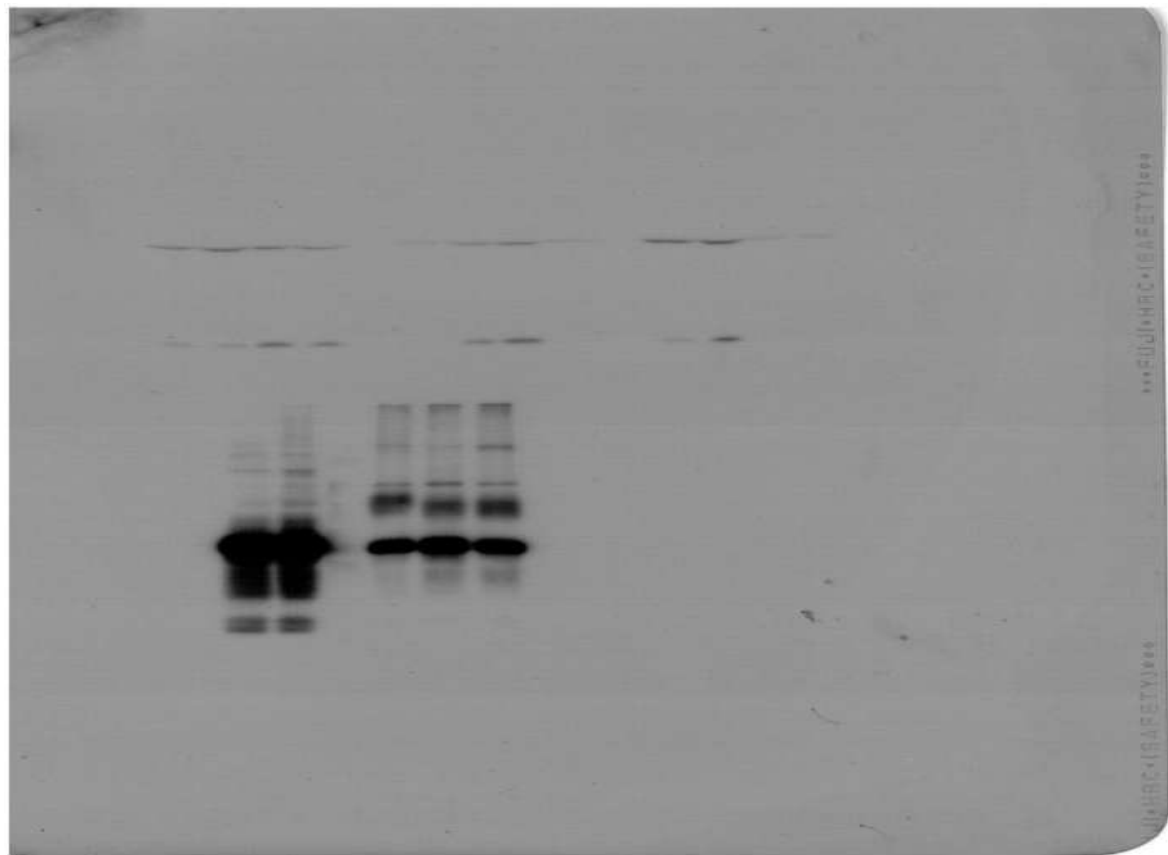


Supplement Figure 7B

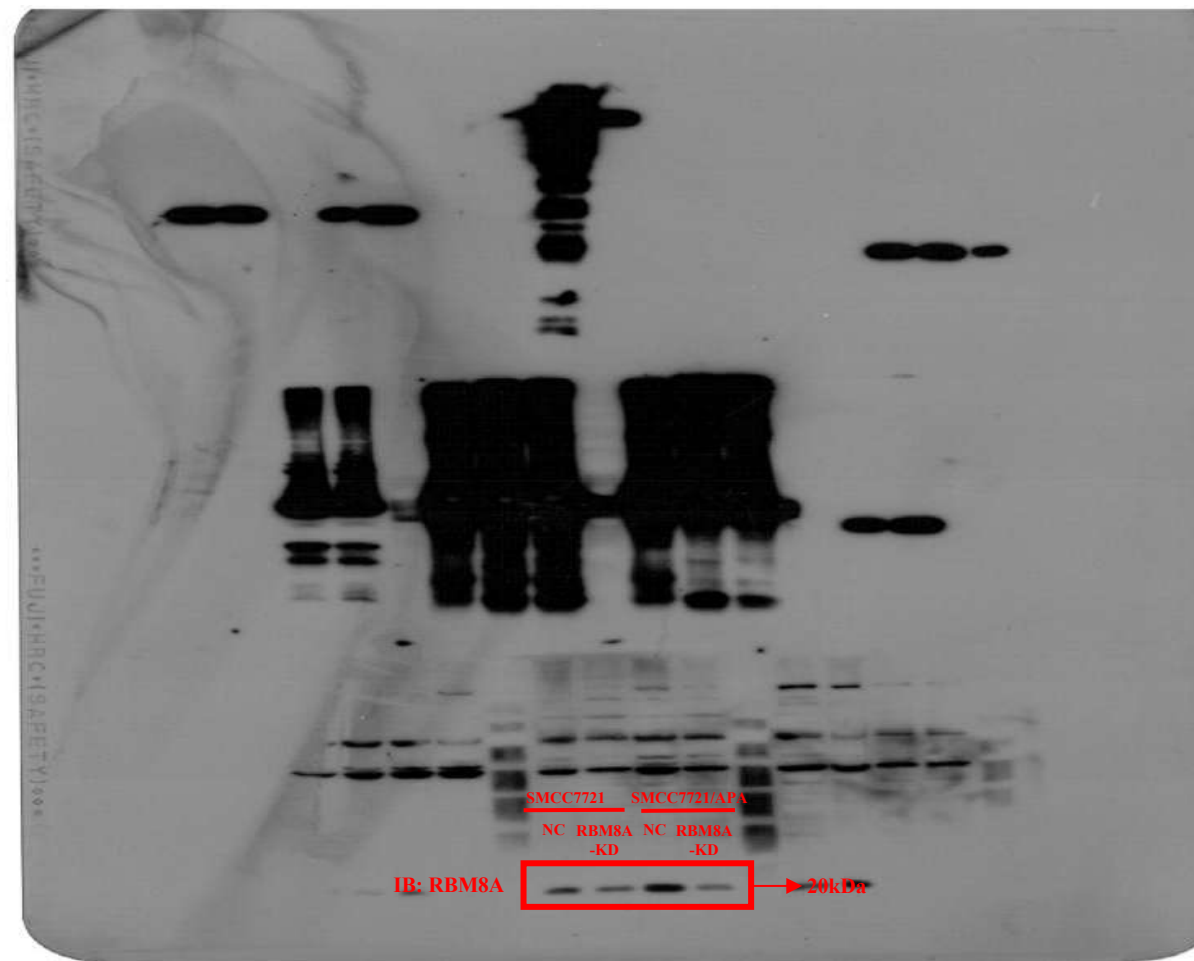
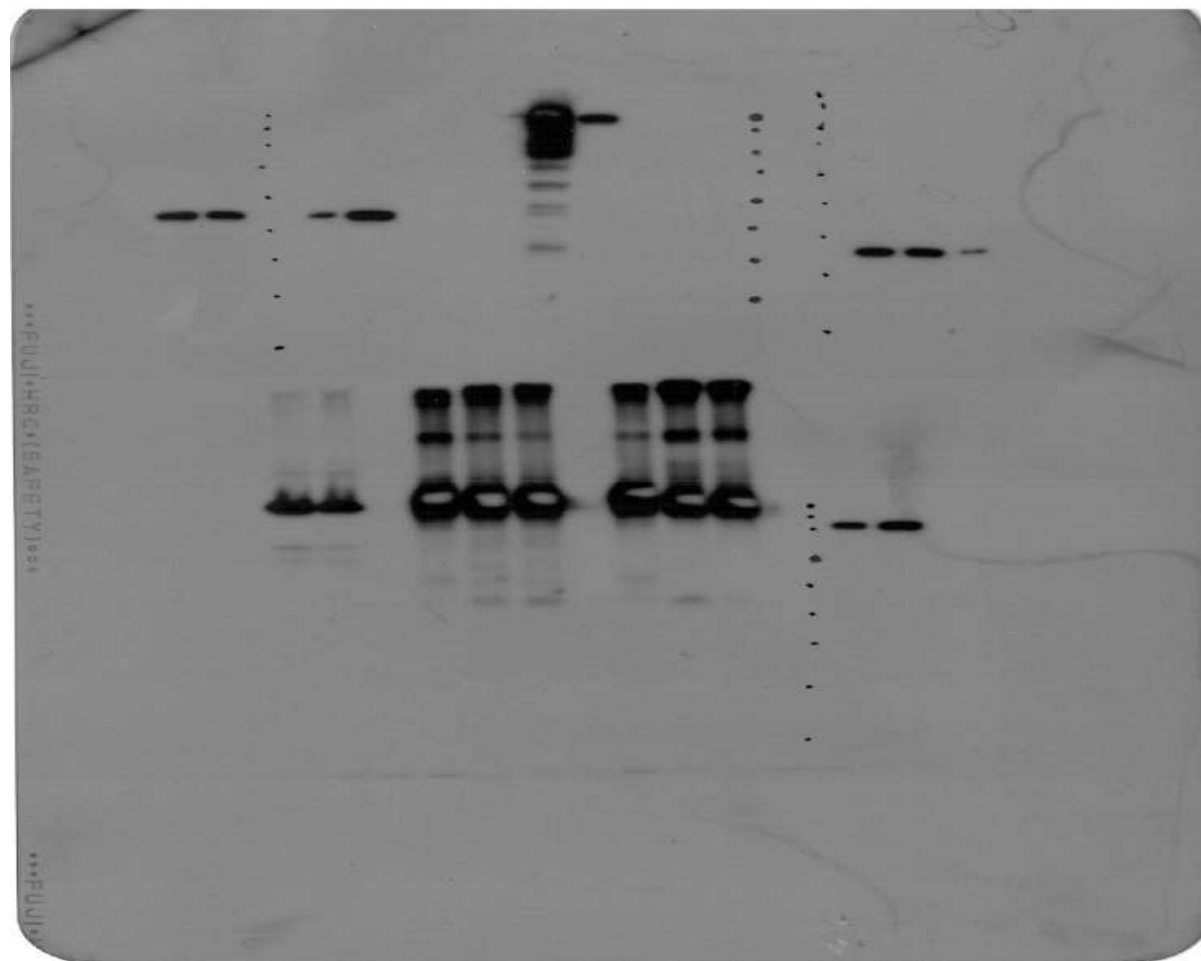
Western blot were used to detect the expression of RBM8A mRNA in parental and apatinib-resistant HCC cell lines under different conditions.



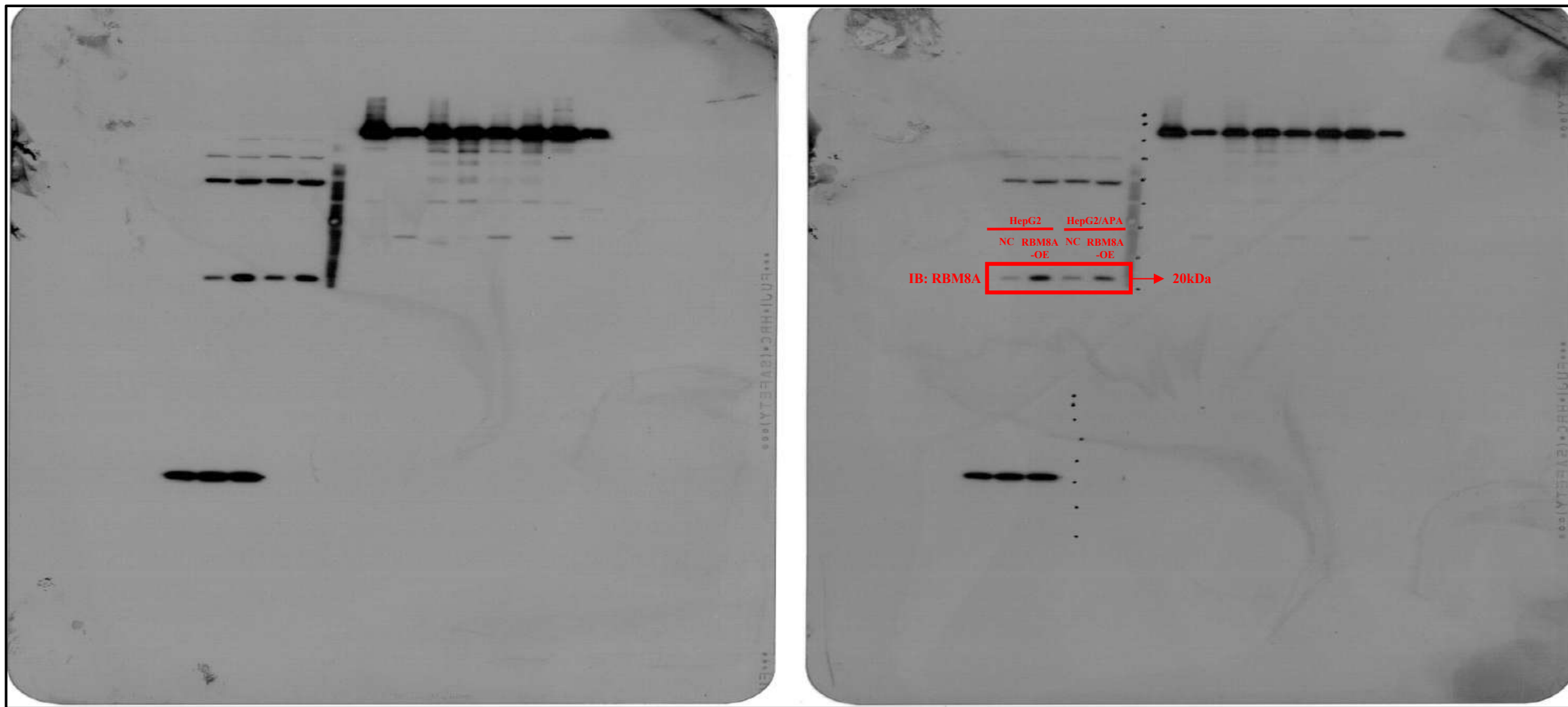
Supplement Figure 7B



Supplement Figure 7B



Supplement Figure 7B



Supplement Figure 7B

