

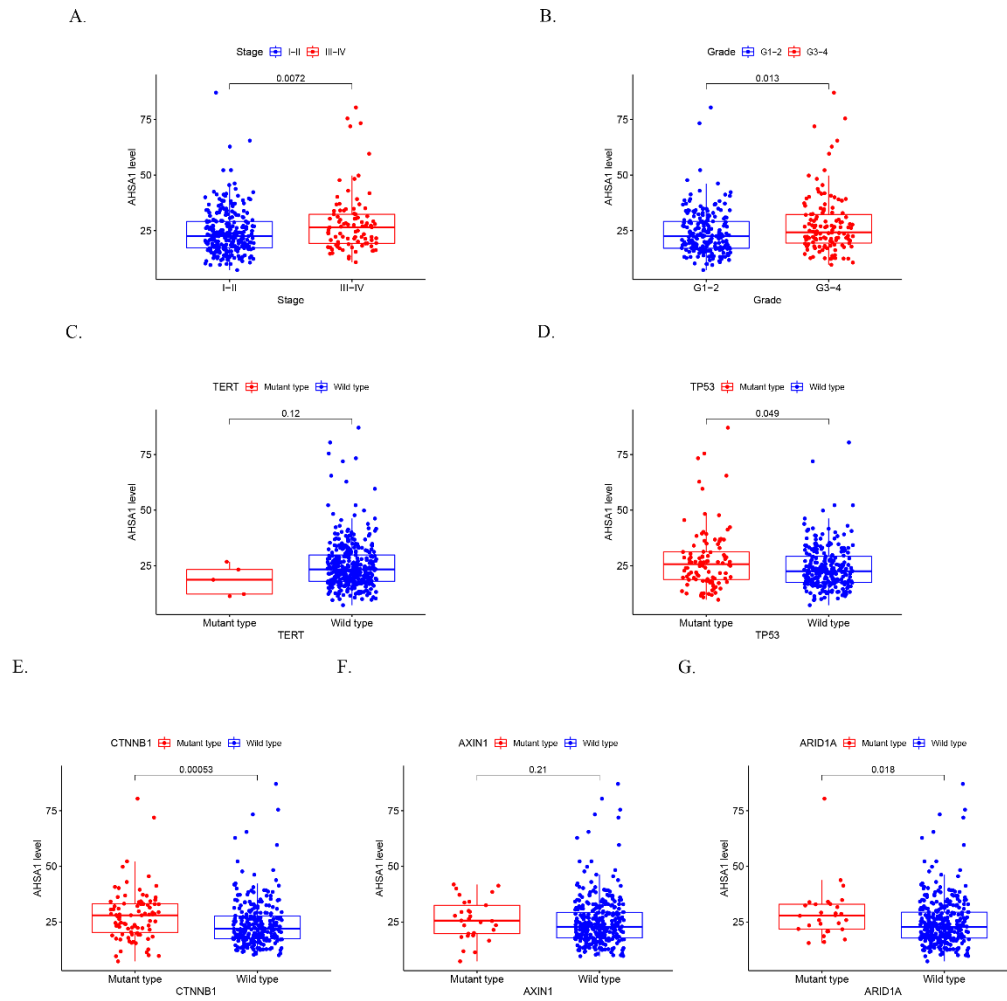


Figure S1.

(A). The AHSA1 level was positively correlated with TNM stage of HCC patients in TCGA-LIHC database. (B). The AHSA1 level was positively correlated with pathological grade of HCC patients in TCGA-LIHC database. (C–G). The relationship between AHSA1 level and the top five genes with the most frequent mutations in HCC including TERT ($P > 0.05$), TP53 ($P < 0.05$), CTNNB1 ($P < 0.001$), AXIN1 ($P > 0.05$), and ARID1A ($P < 0.05$).

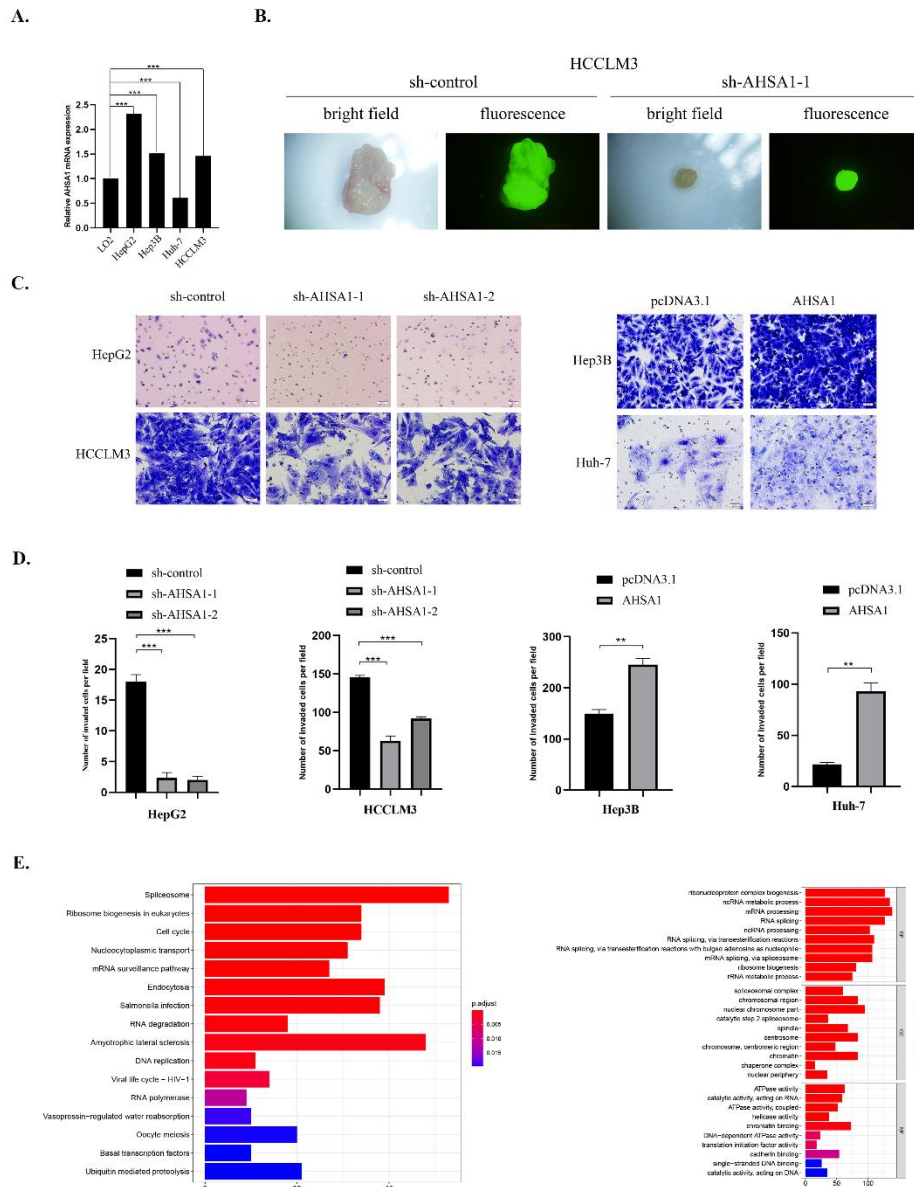


Figure S2.

(A). The mRNA level of AHSA1 in HCC cells and normal immortalized liver epithelial cells (LO2). (B). Representative images of tumor tissue fluorescence and bright field in nude mice. (C,D). Representative images and corresponding quantitative analysis of Transwell invasion assays in indicated HCC cell lines. (E). KEGG and GO enrichment analysis of AHSA1-related genes in TCGA-LIHC database. **, $P < 0.01$; ***, $P < 0.001$.

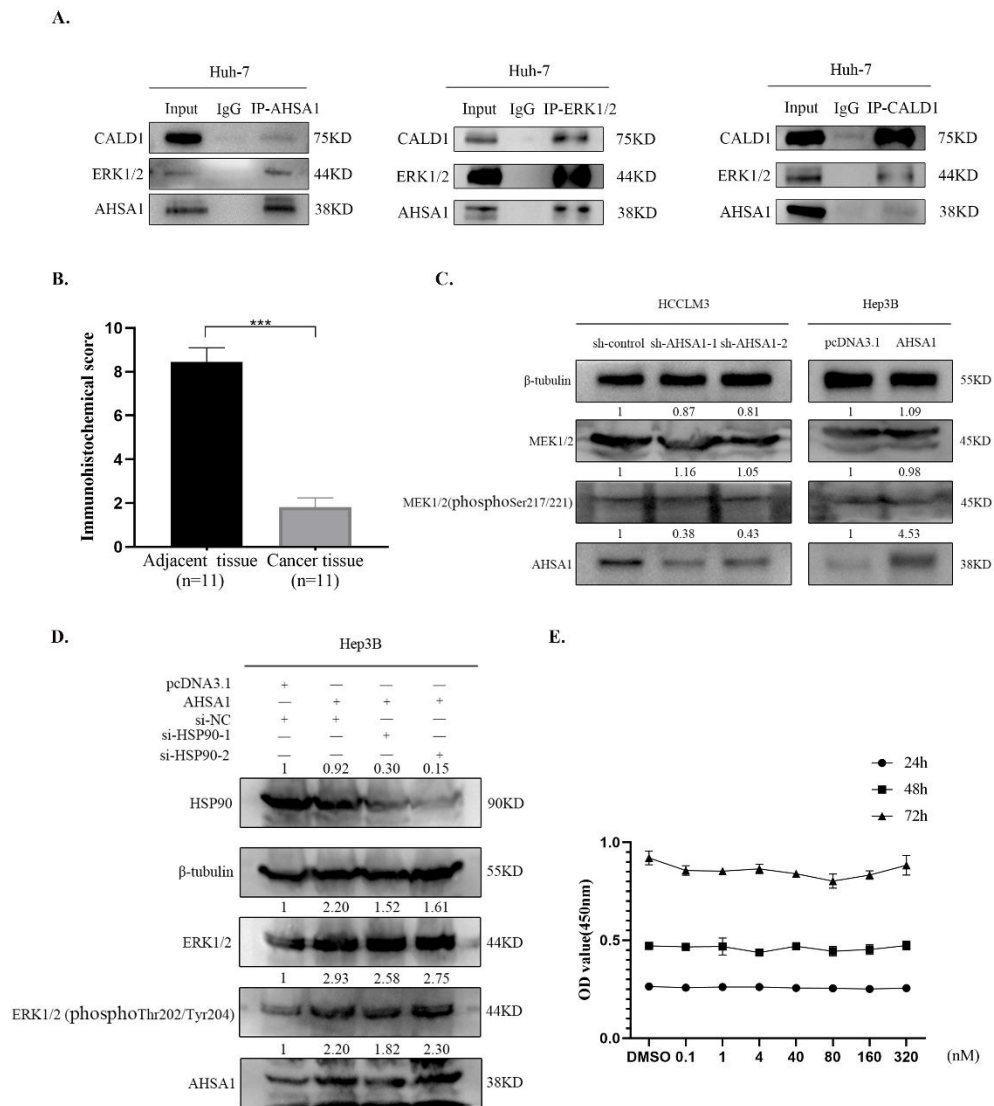


Figure S3.

(A). The AHSA1-ERK1/2-CALD1 interaction was analyzed by Co-IP of Huh-7 cell lysates, and shown by Western blot. (B). IHC score of CALD1 in cancer and adjacent tissues of HCC patients. (C). The effect of knocking-down or overexpressing AHSA1 on MEK1/2 expression in HCC cells. (D). Effect of knock-down HSP90 on the corresponding protein molecules in Hep3B cells. (E). The effects of different concentrations of SCH772984 on HCC cells were measured by CCK-8 assay. ***, $P < 0.001$.

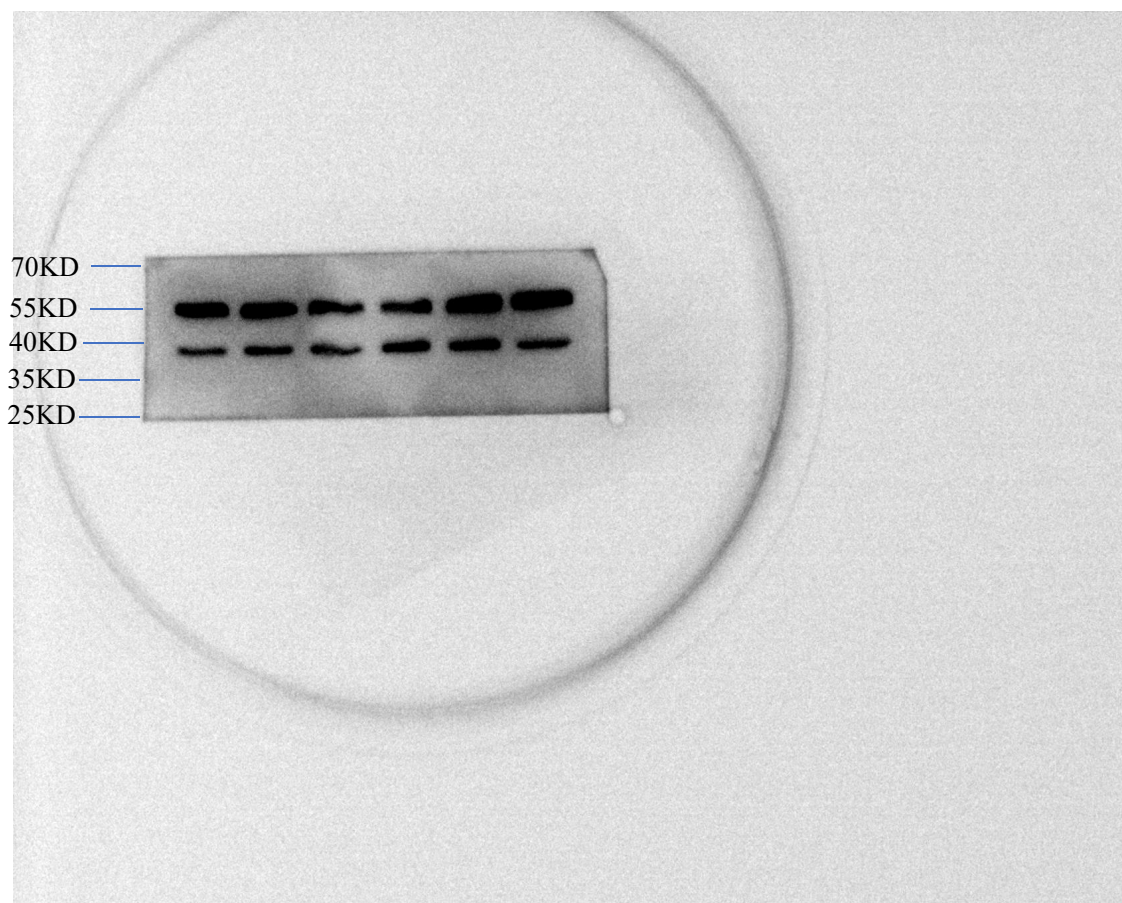


Figure 1C

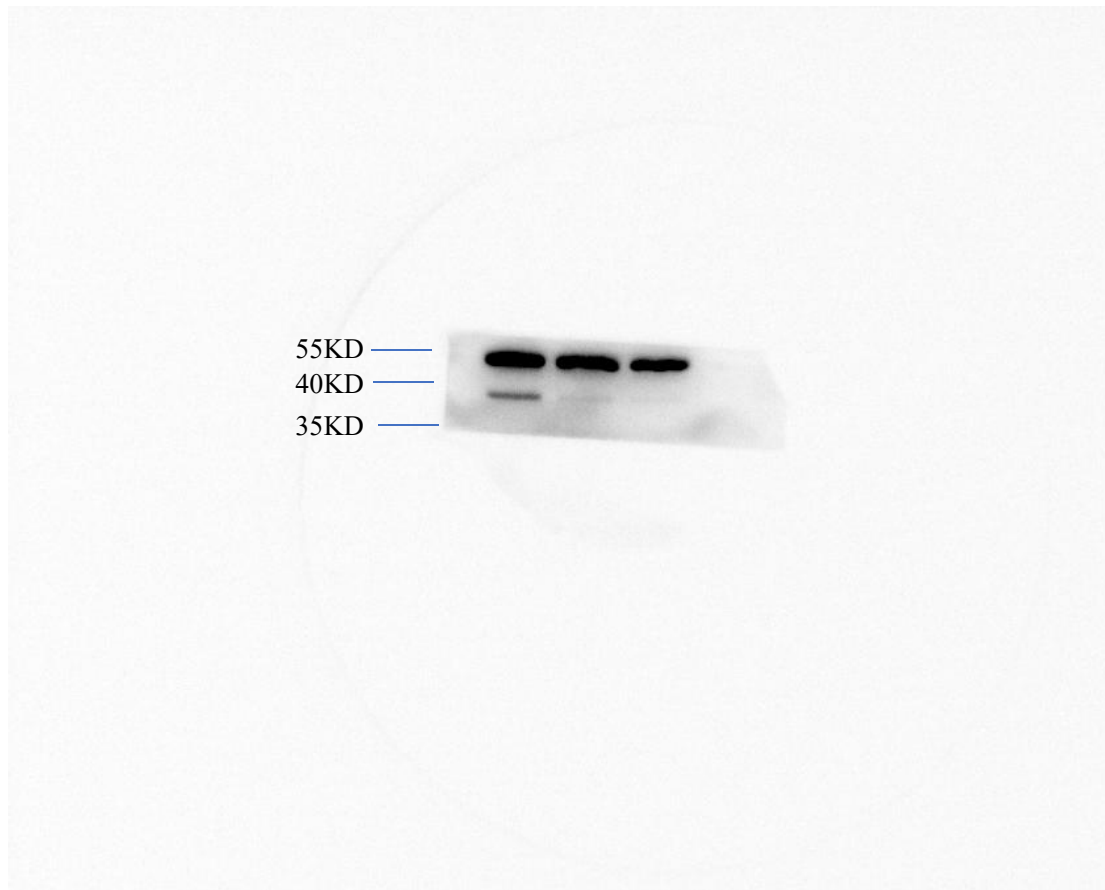


Figure2A HepG2 β -tubulin

Figure2A HepG2 AHSA1

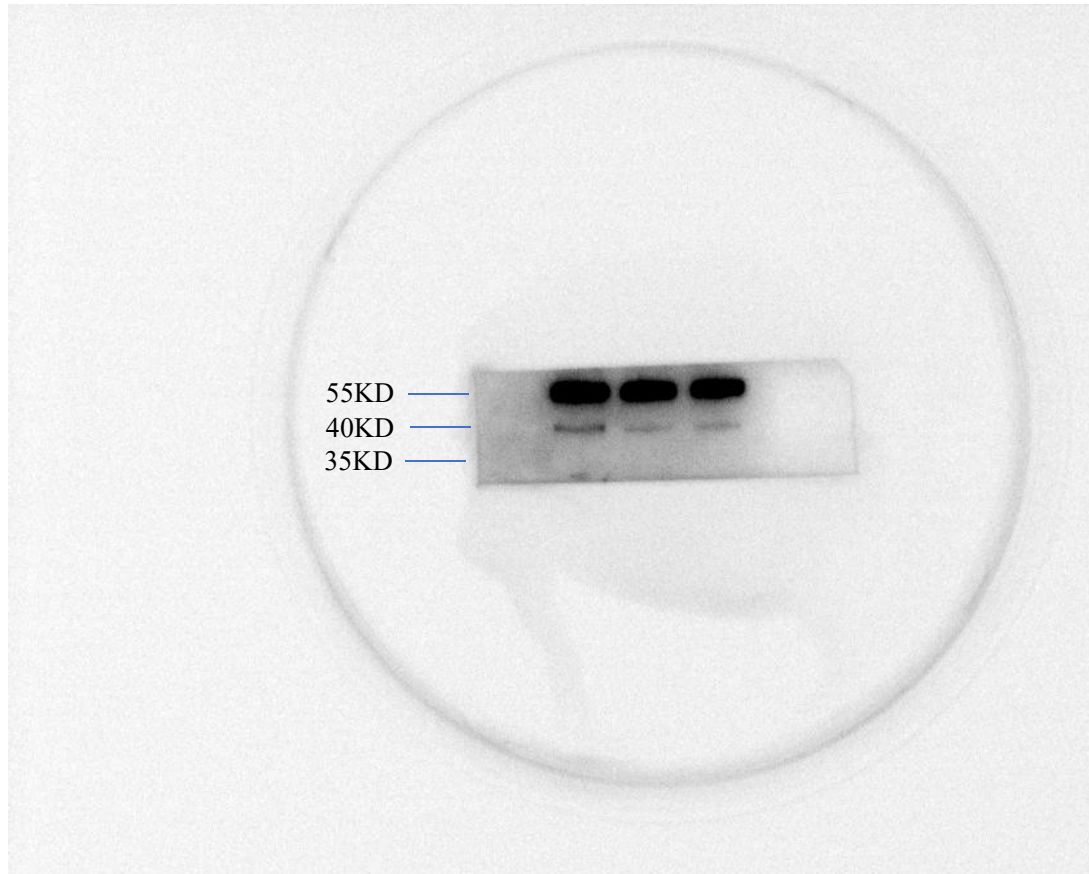


Figure2A HCCLM3 β -tubulin

Figure2A HCCLM3 AHSA1

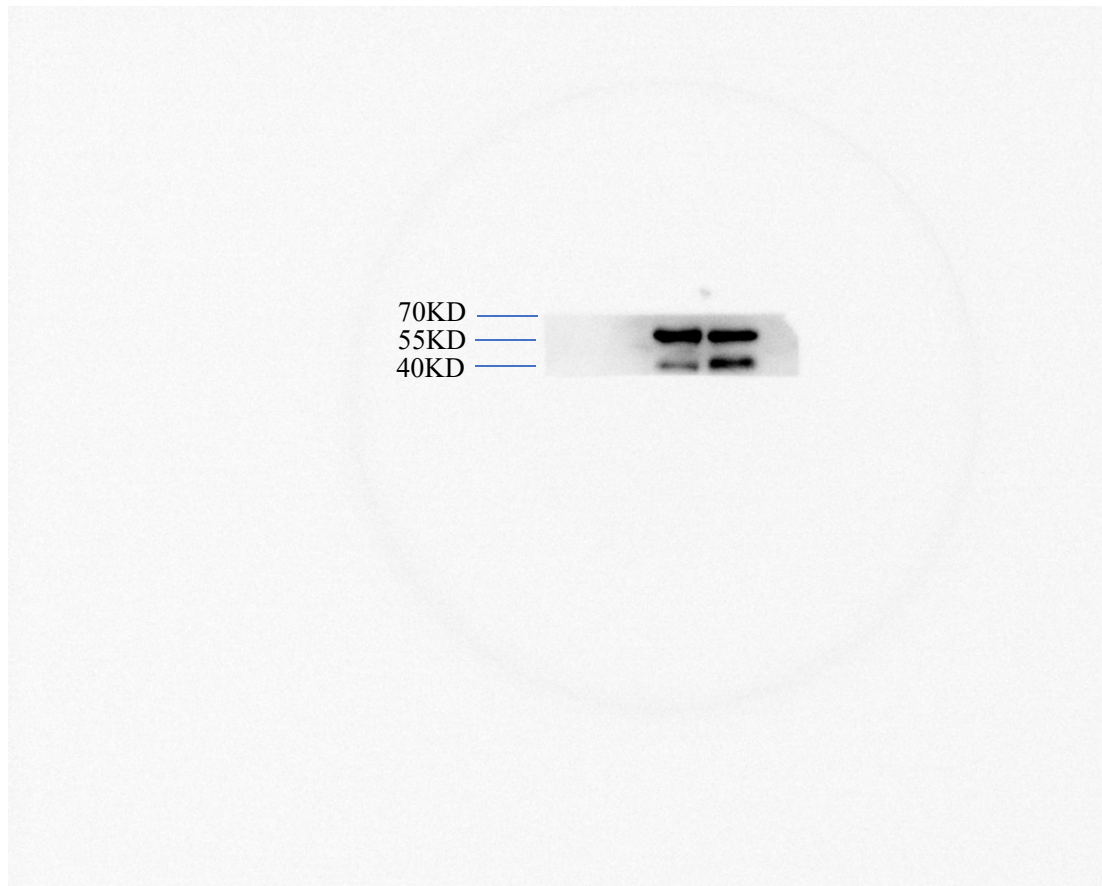


Figure2A Huh-7 β -tubulin

Figure2A Huh-7 AHSA1

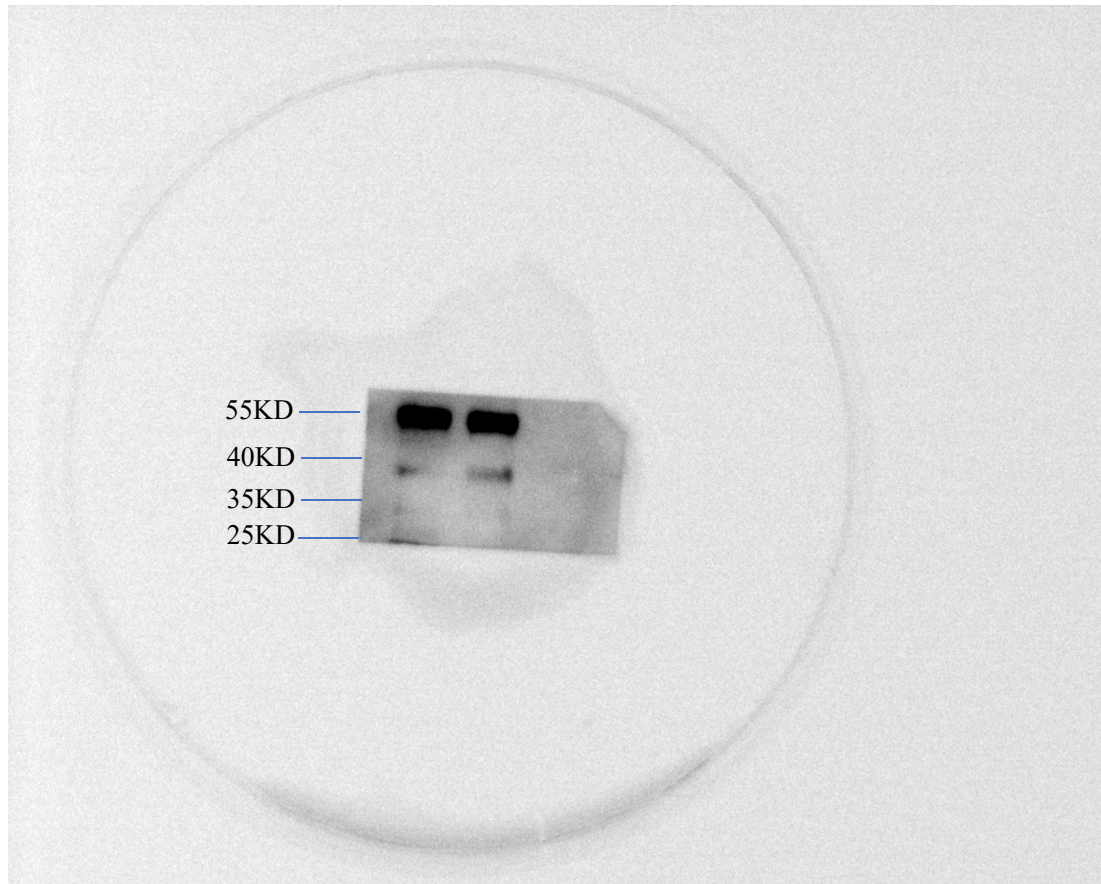


Figure2A Hep3B β -tubulin

Figure2A Hep3B AHSA1

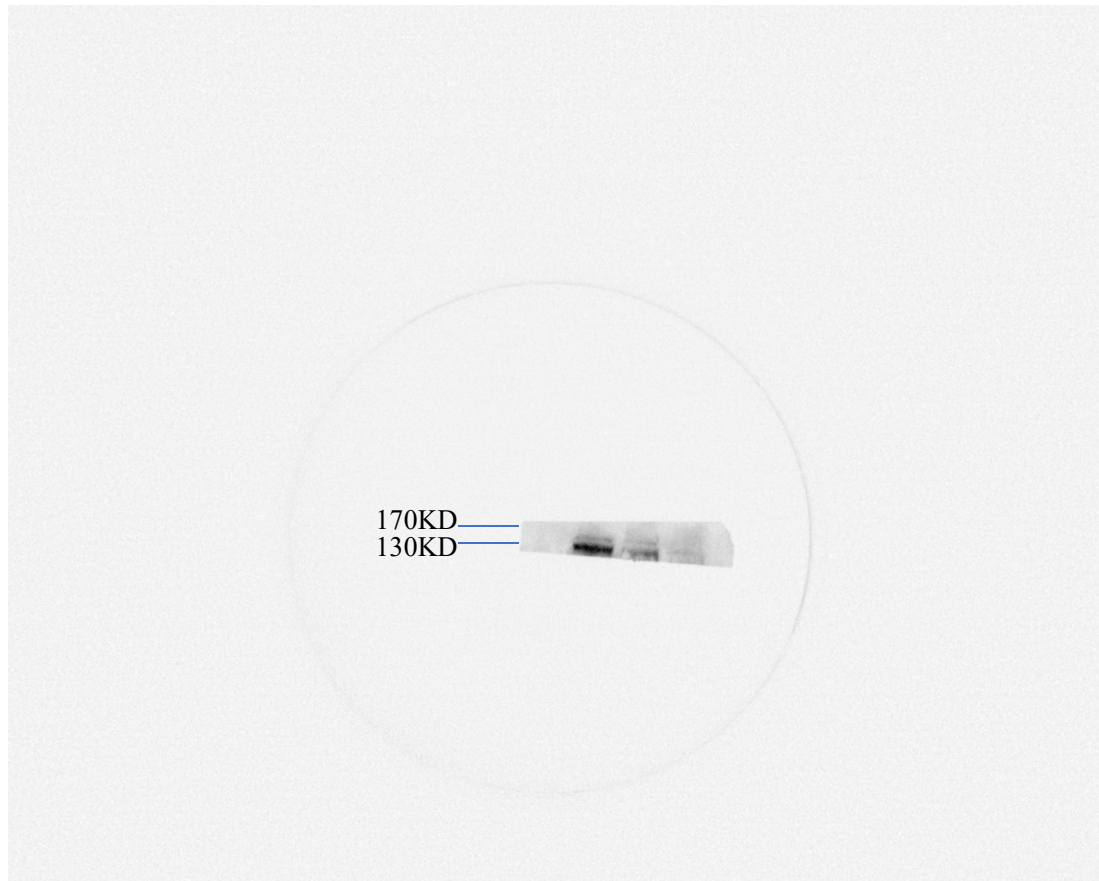


Figure4A HepG2 N-cadherin

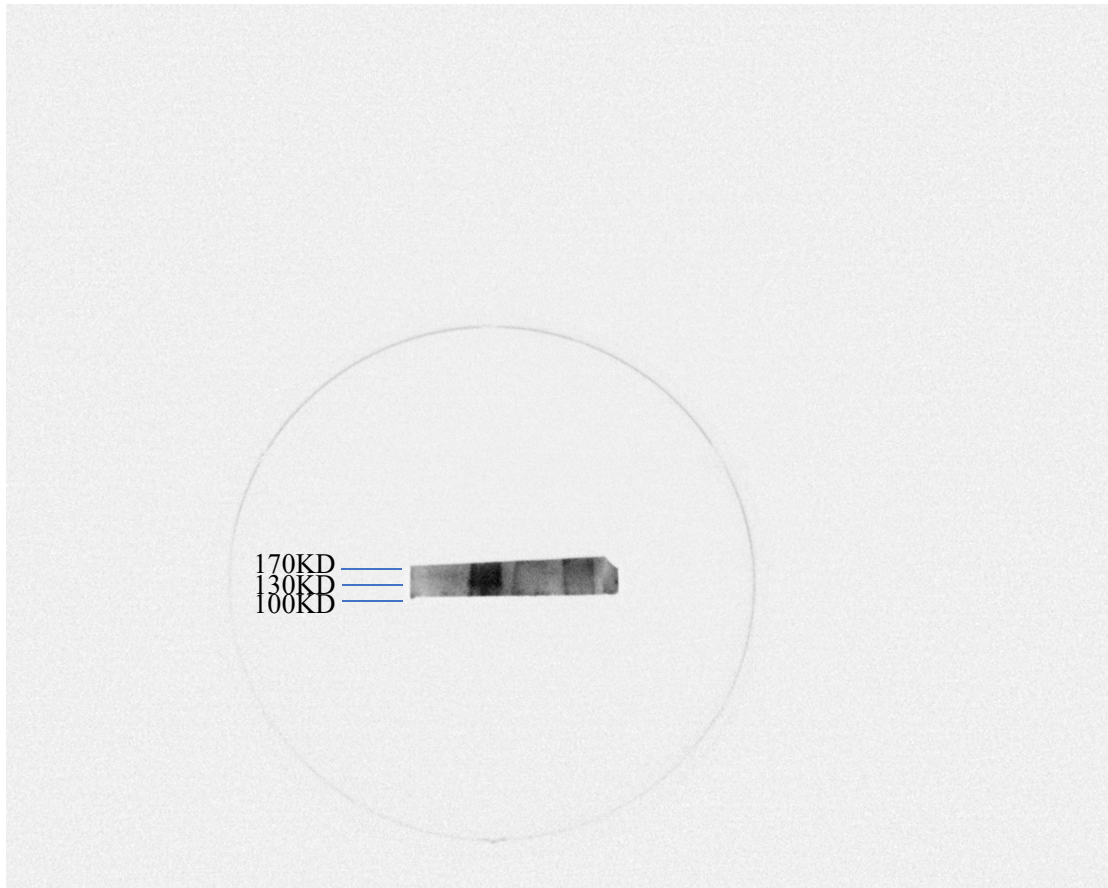


Figure4A HCCLM3 N-cadherin

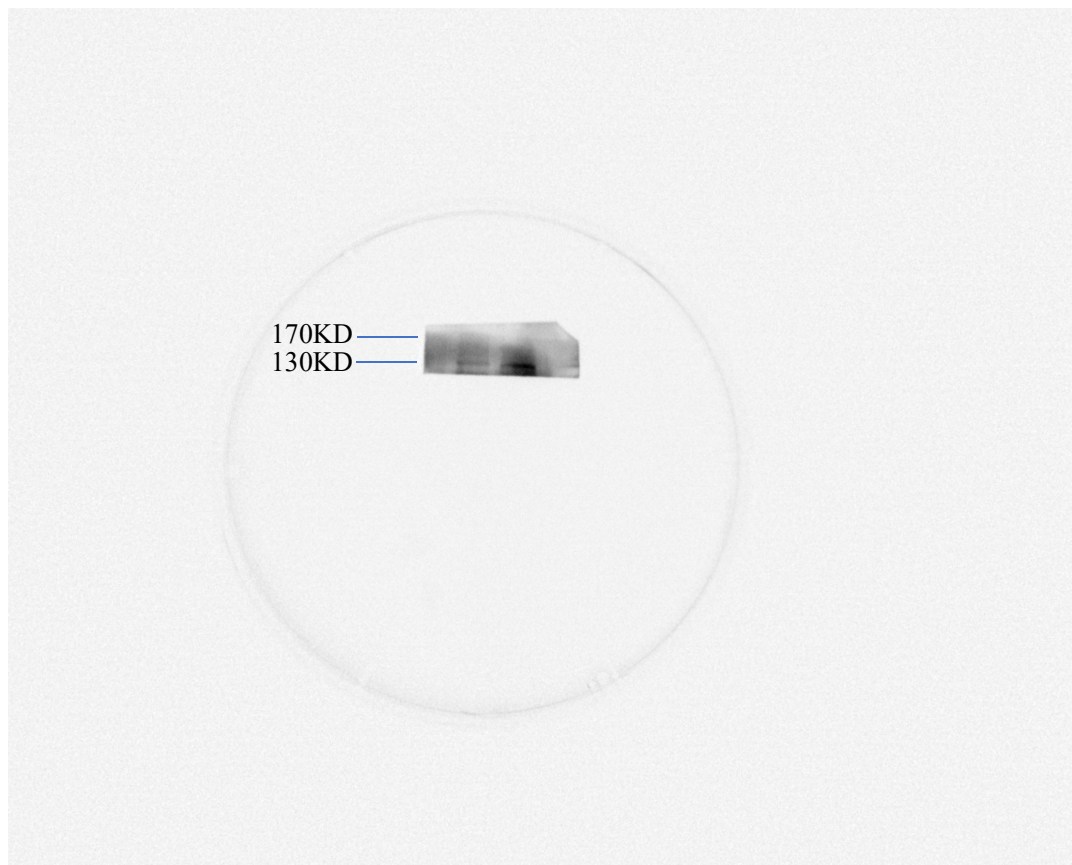


Figure4A Hep3B N-cadherin

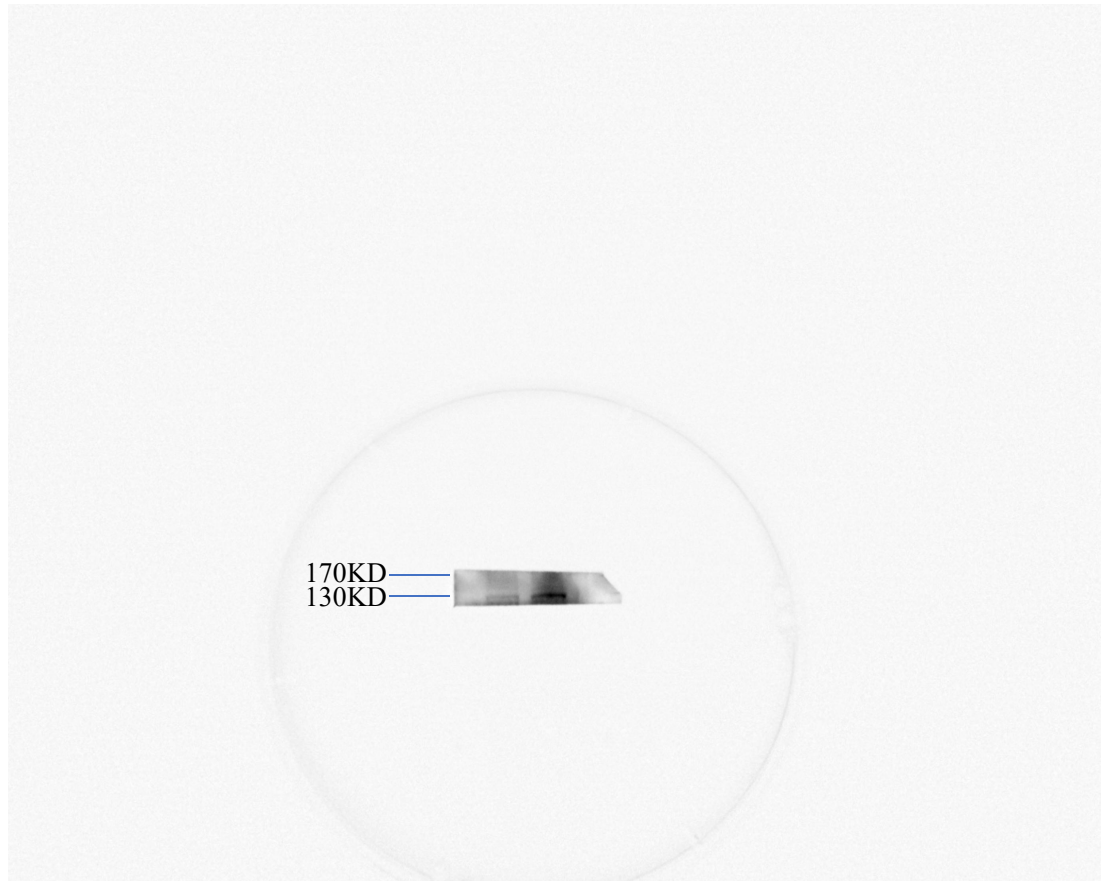


Figure4A Huh-7 N-cadherin

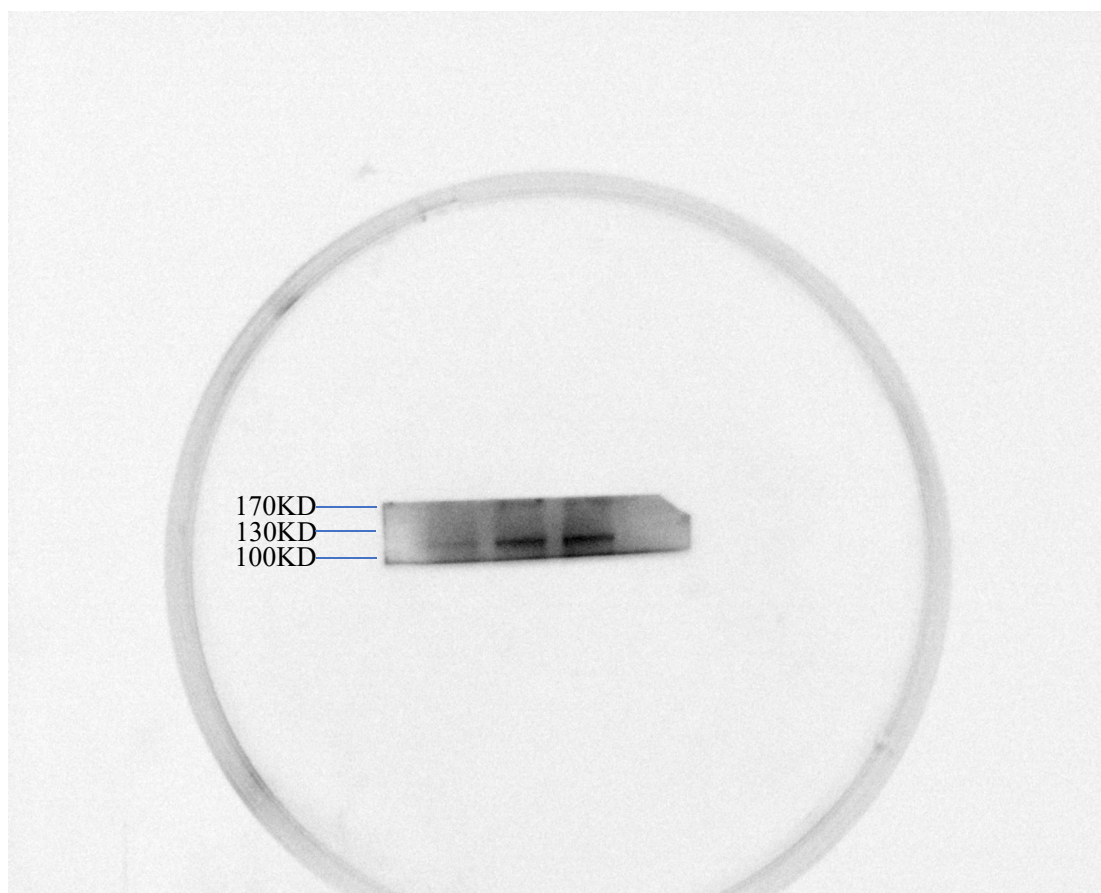


Figure4A HepG2 E-cadherin

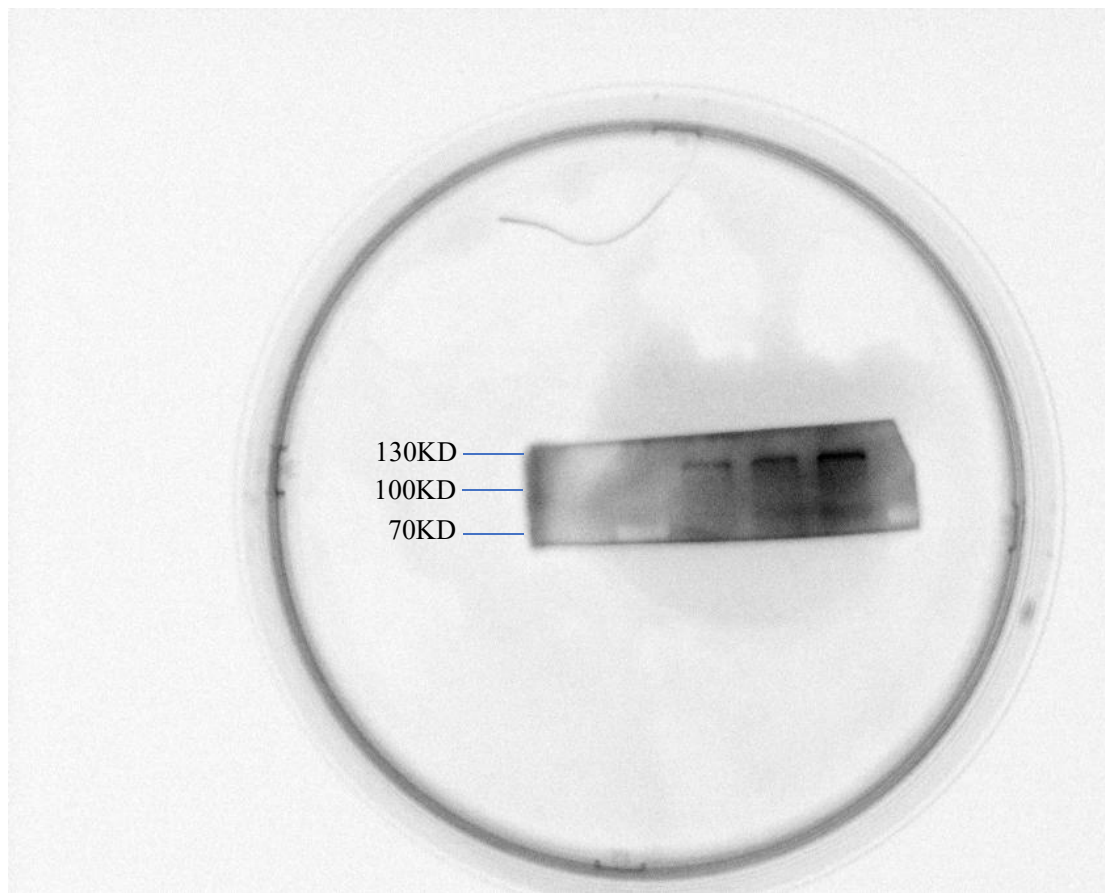


Figure4A HCCLM3 E-cadherin

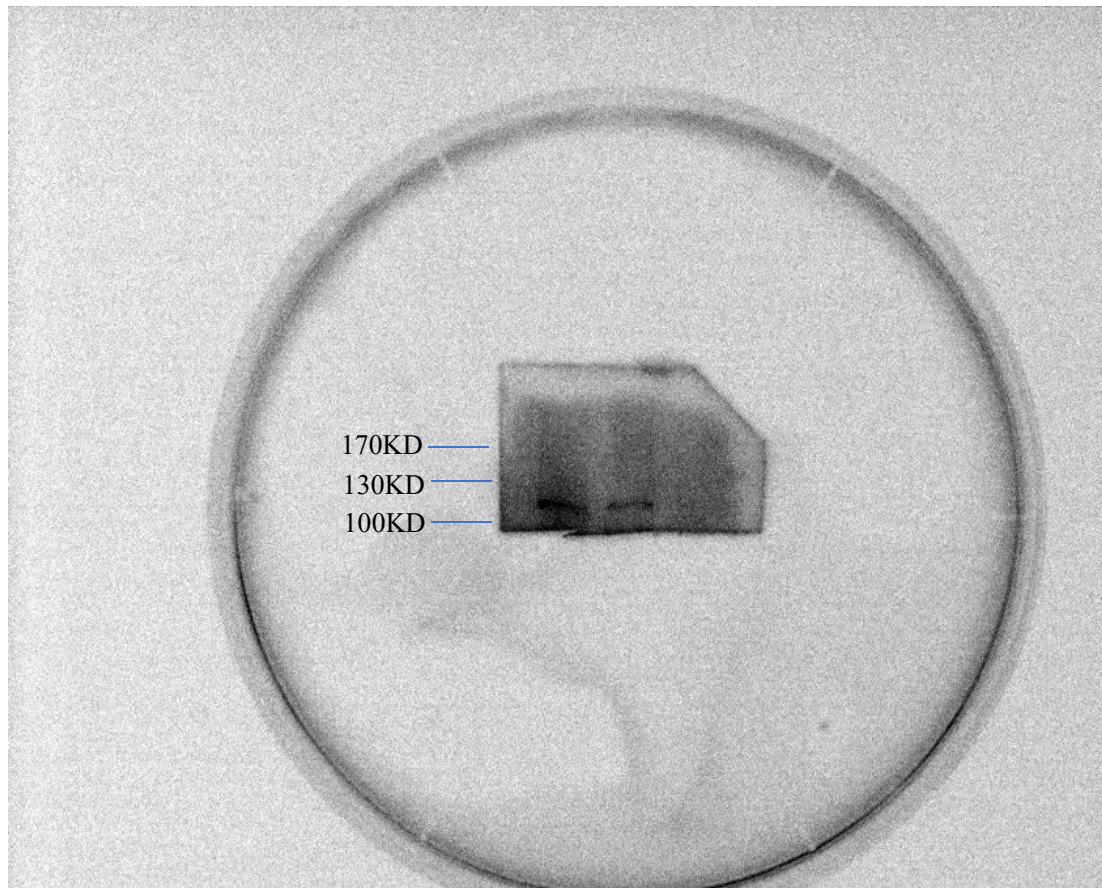


Figure4A Hep3B E-cadherin

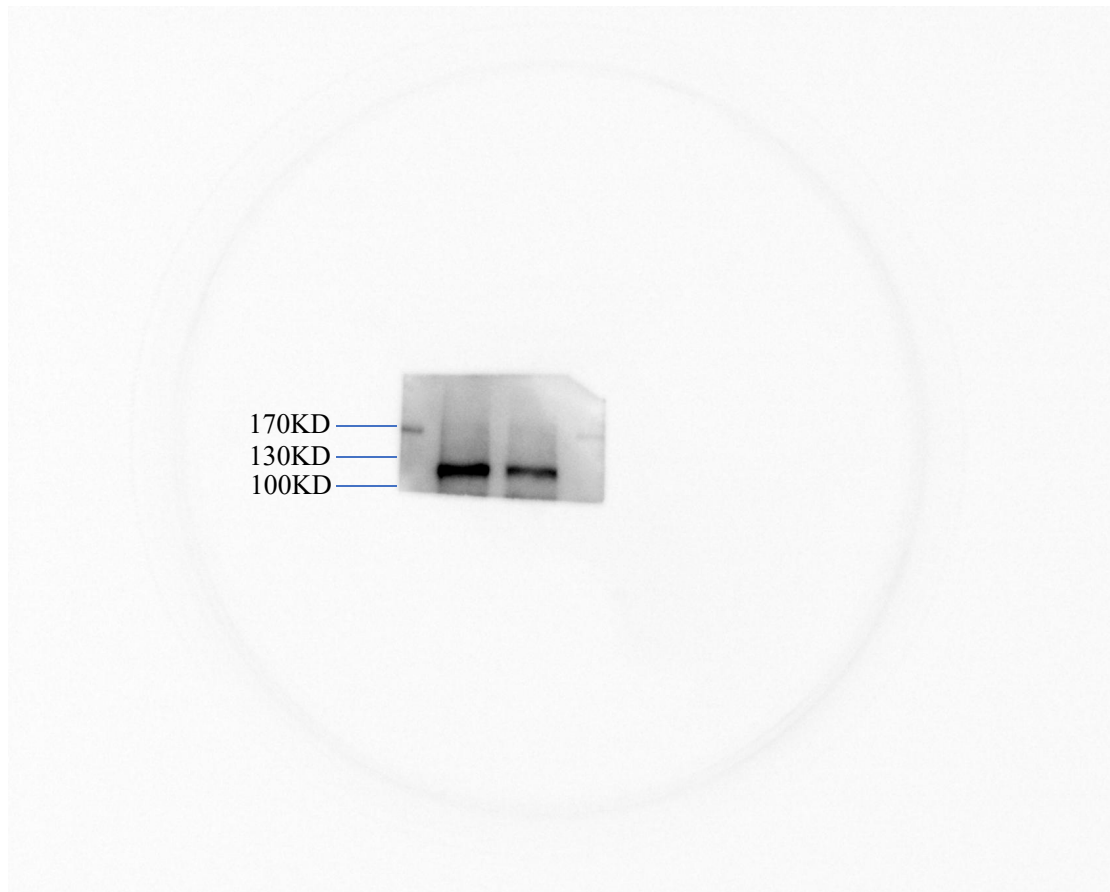


Figure4A Huh-7 E-cadherin

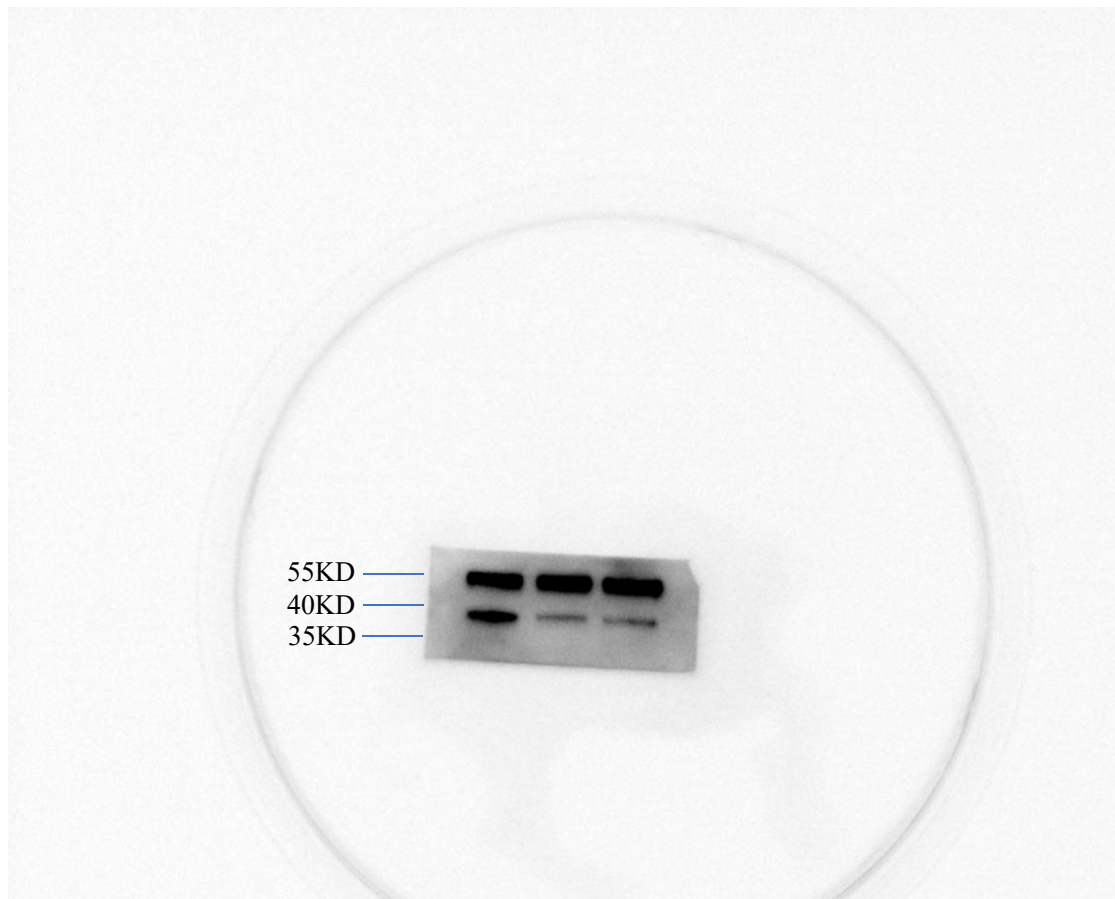


Figure4A HepG2 β -tubulin

Figure4A HepG2 AHSA1

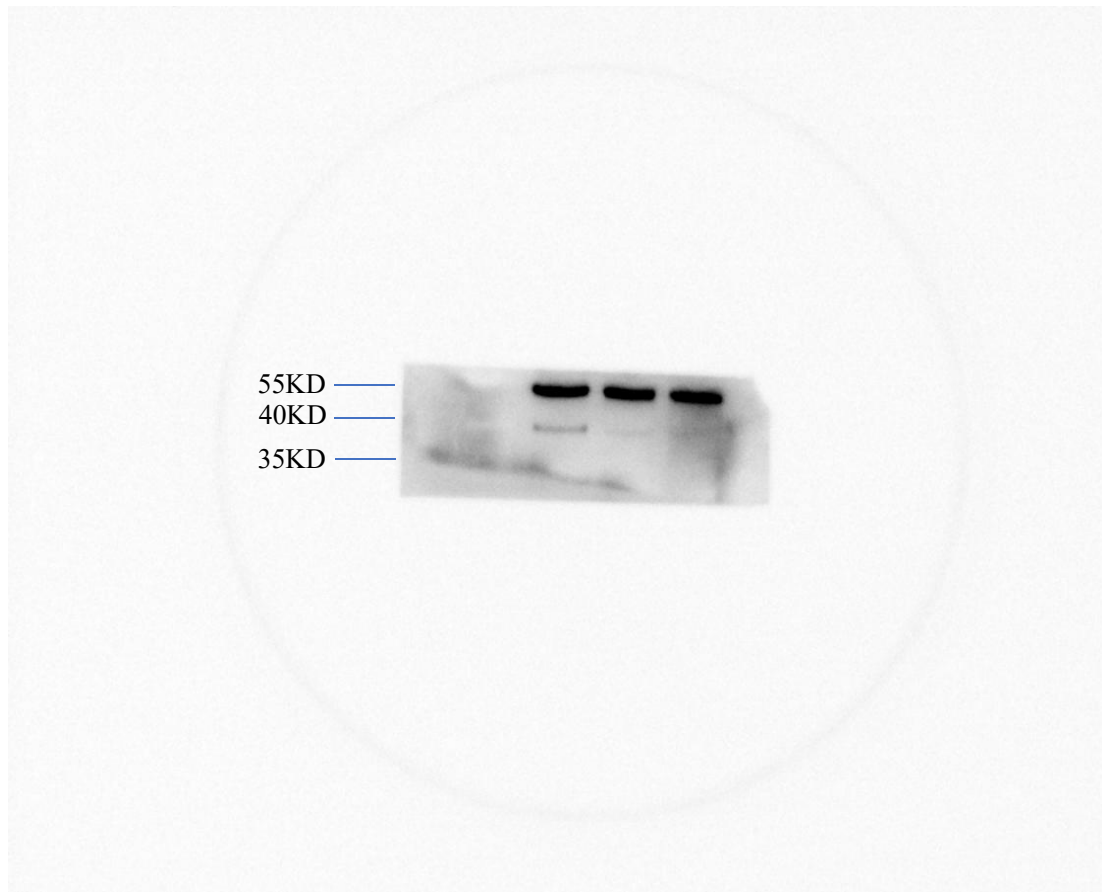


Figure4A HCCLM3 β -tubulin

Figure4A HCCLM3 AHSA1

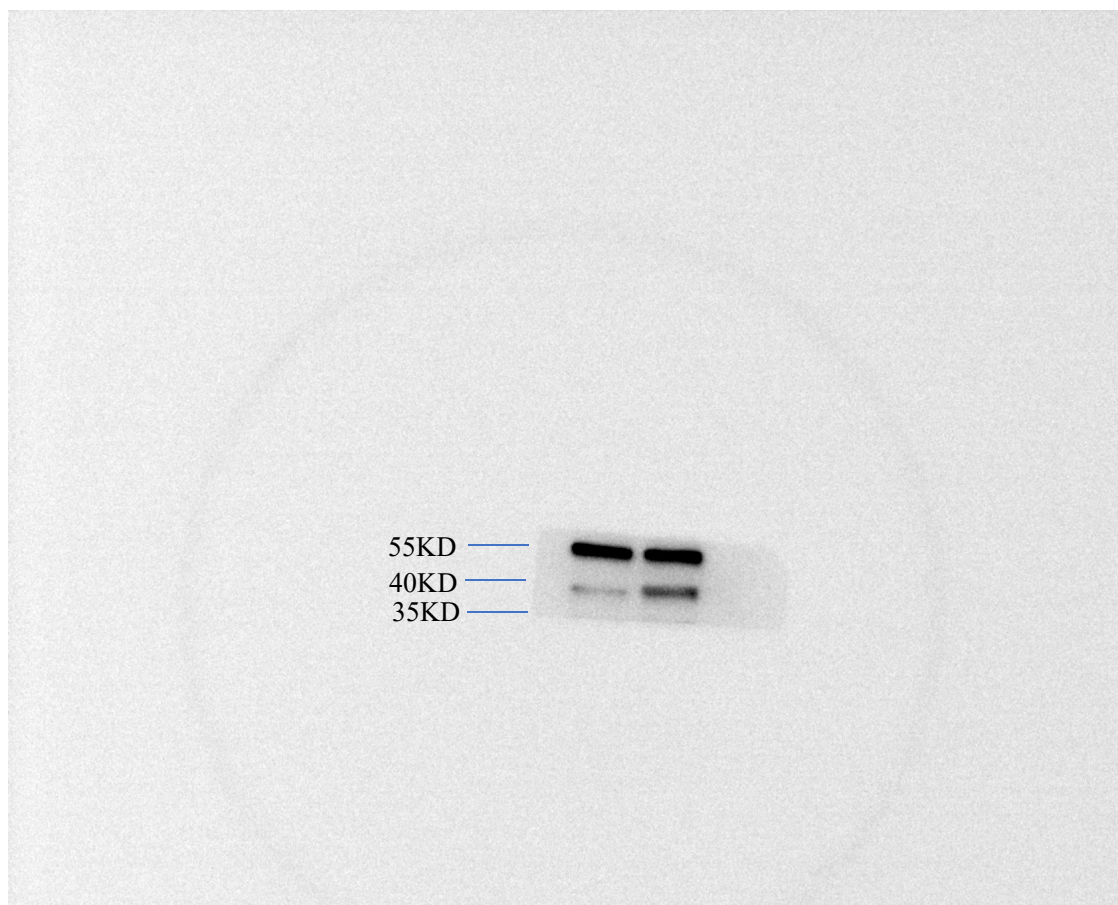


Figure4A Hep3B β -tubulin

Figure4A Hep3B AHSA1

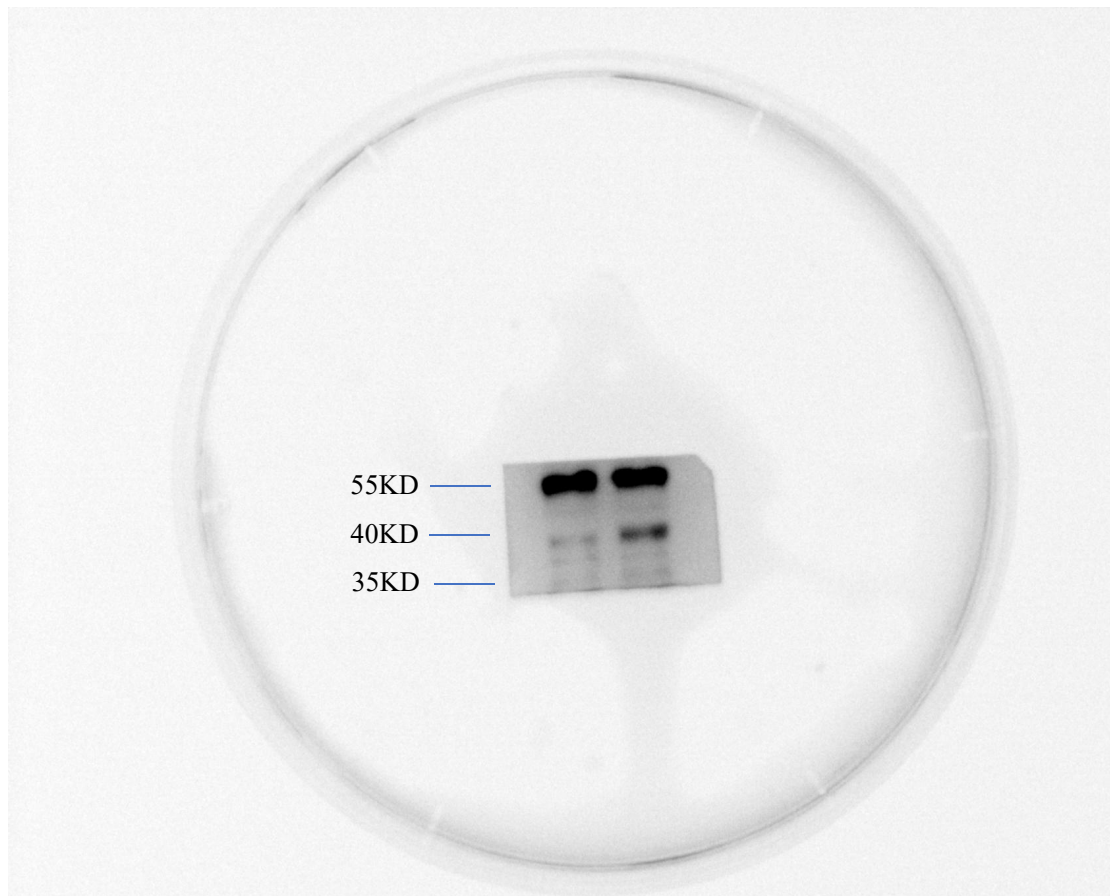


Figure4A Huh-7 β -tubulin

Figure4A Huh-7 AHSA1

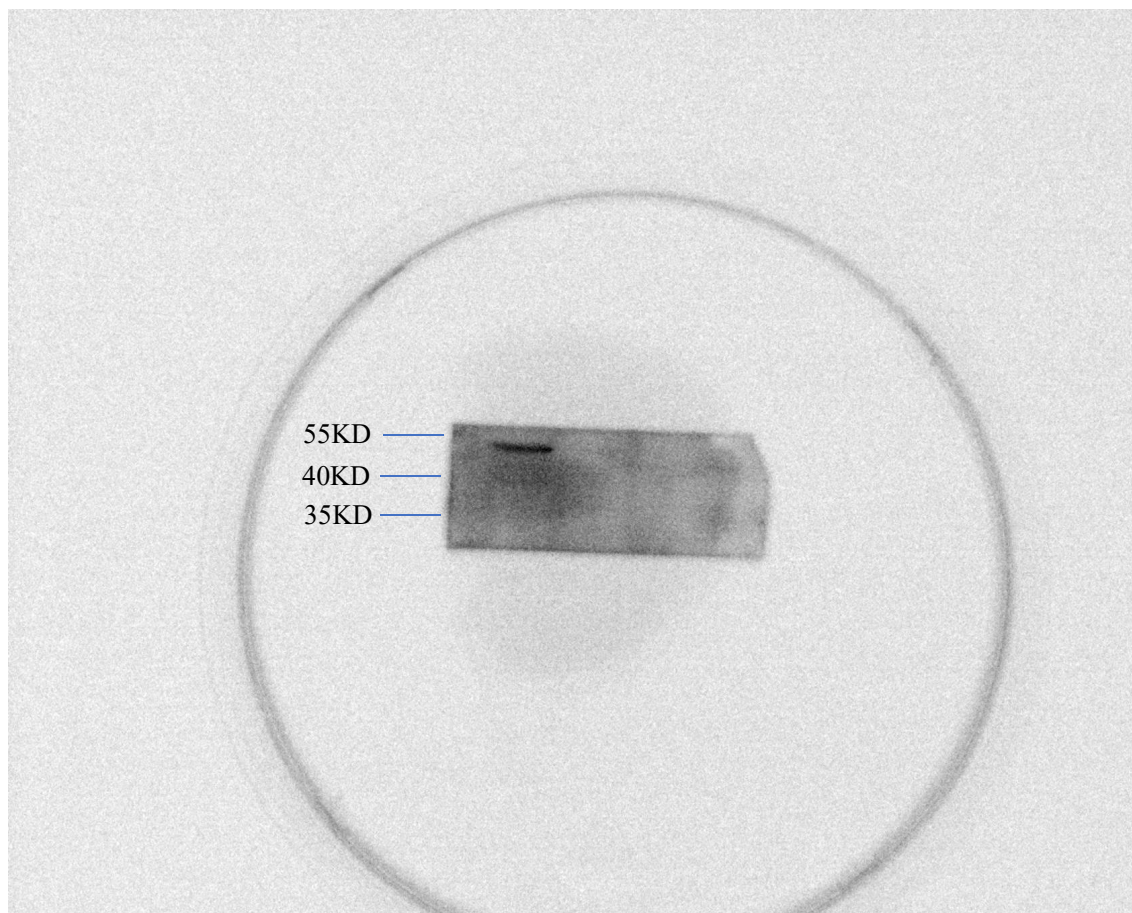


Figure4A HepG2 vimentin

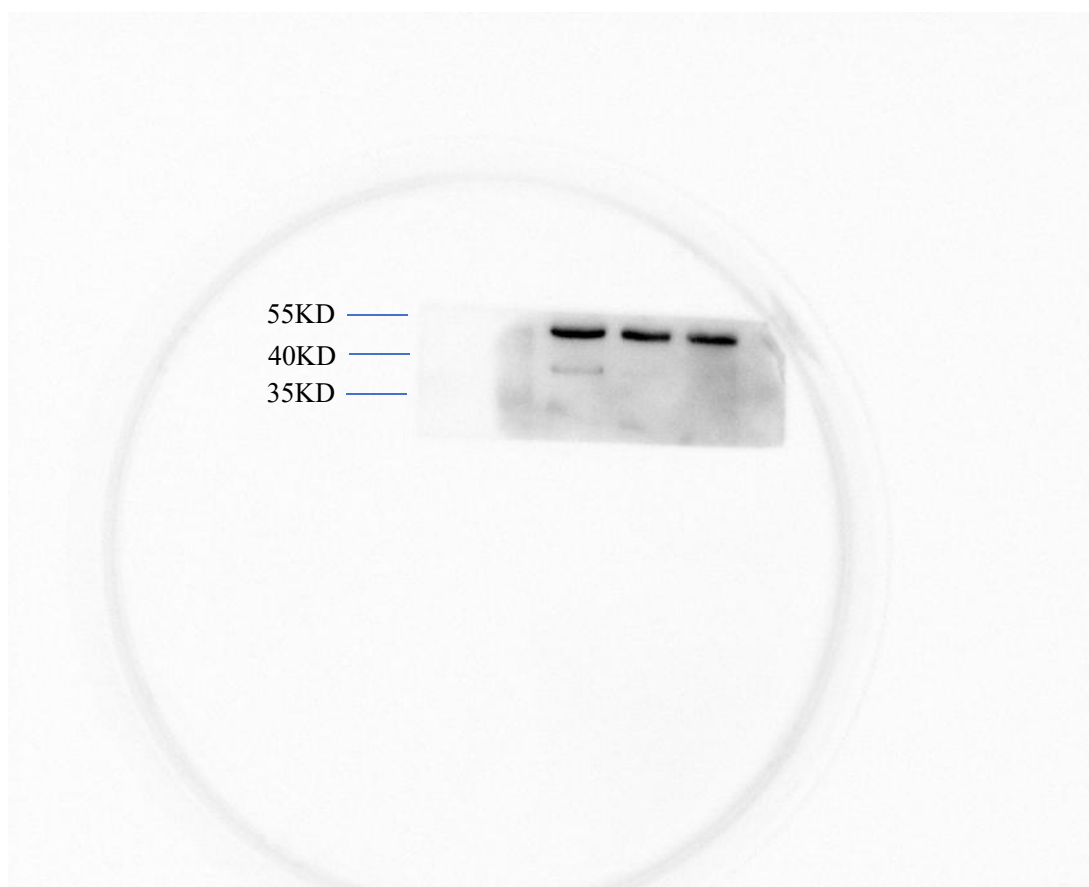


Figure4A HCCLM3 vimentin

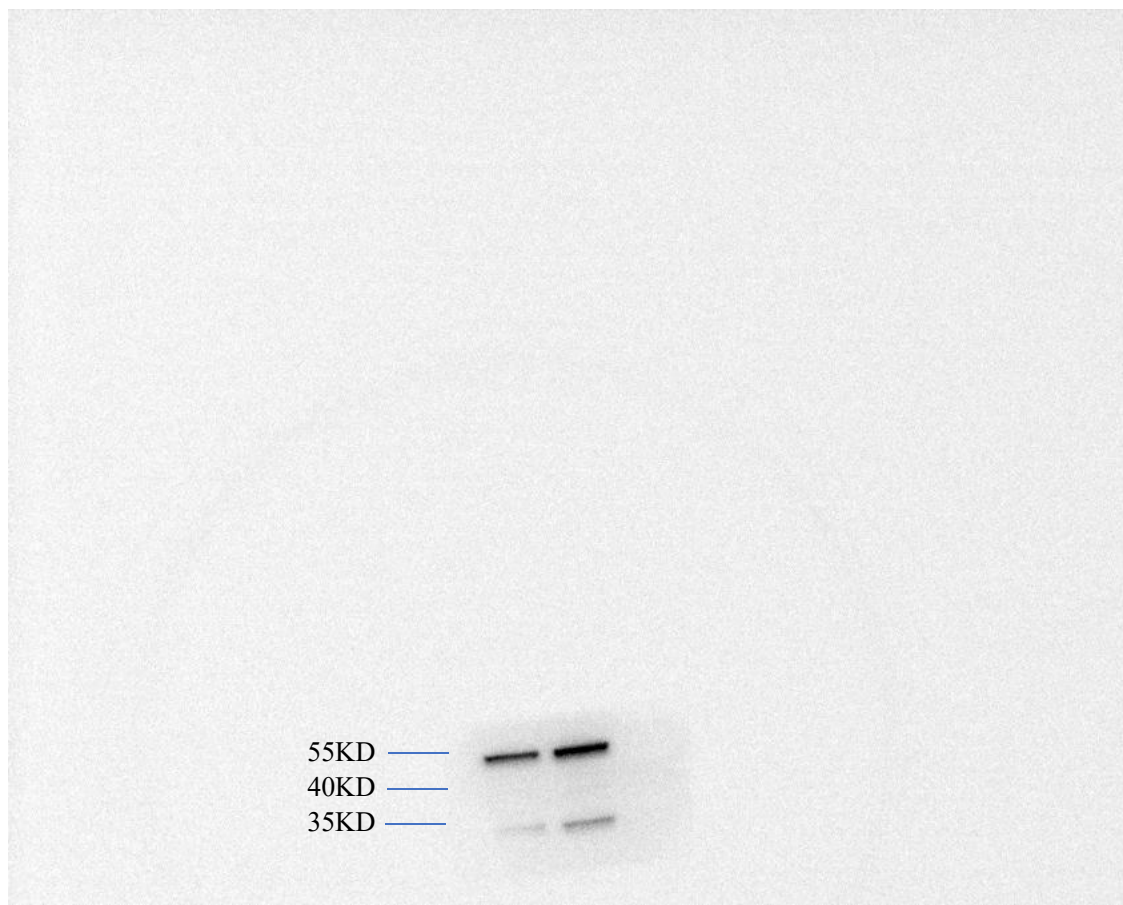


Figure4A Hep3B vimentin



Figure4A Huh-7 vimentin

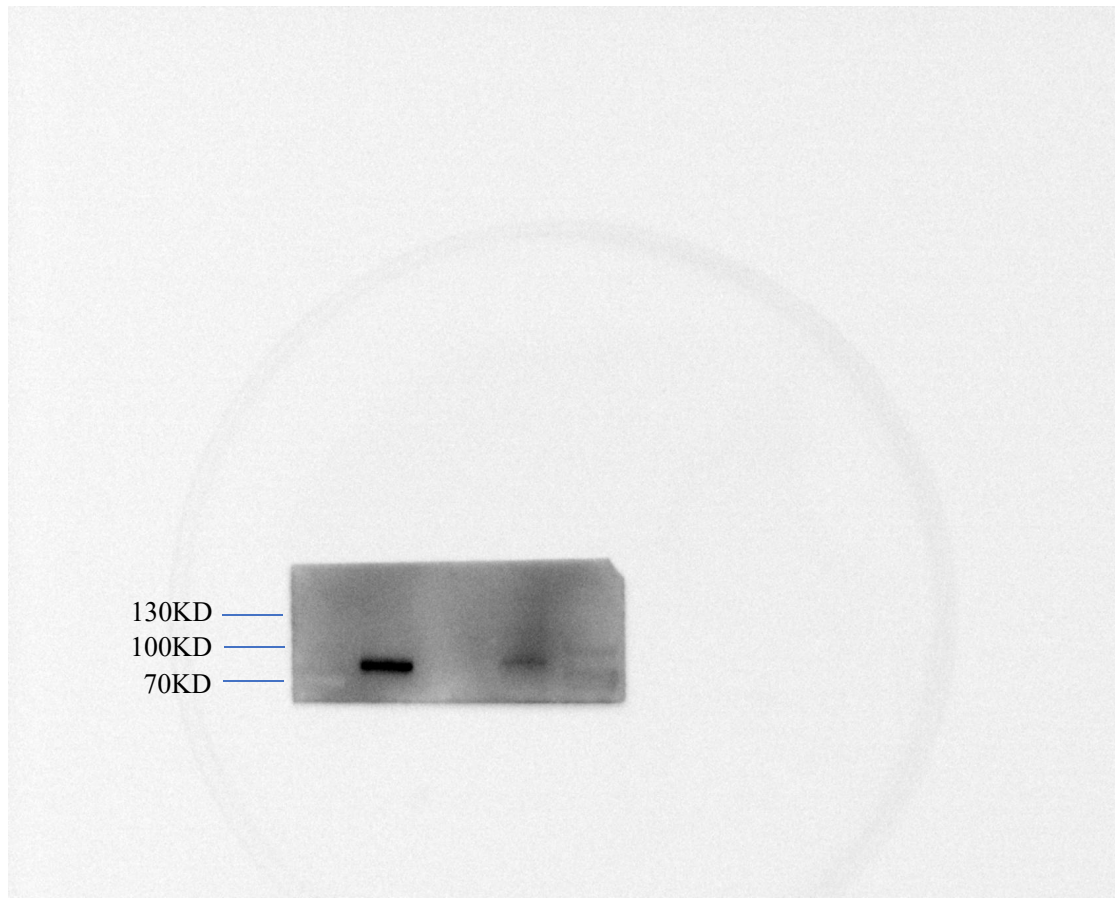


Figure4C Hep3B IP-AHSA1 CALD1

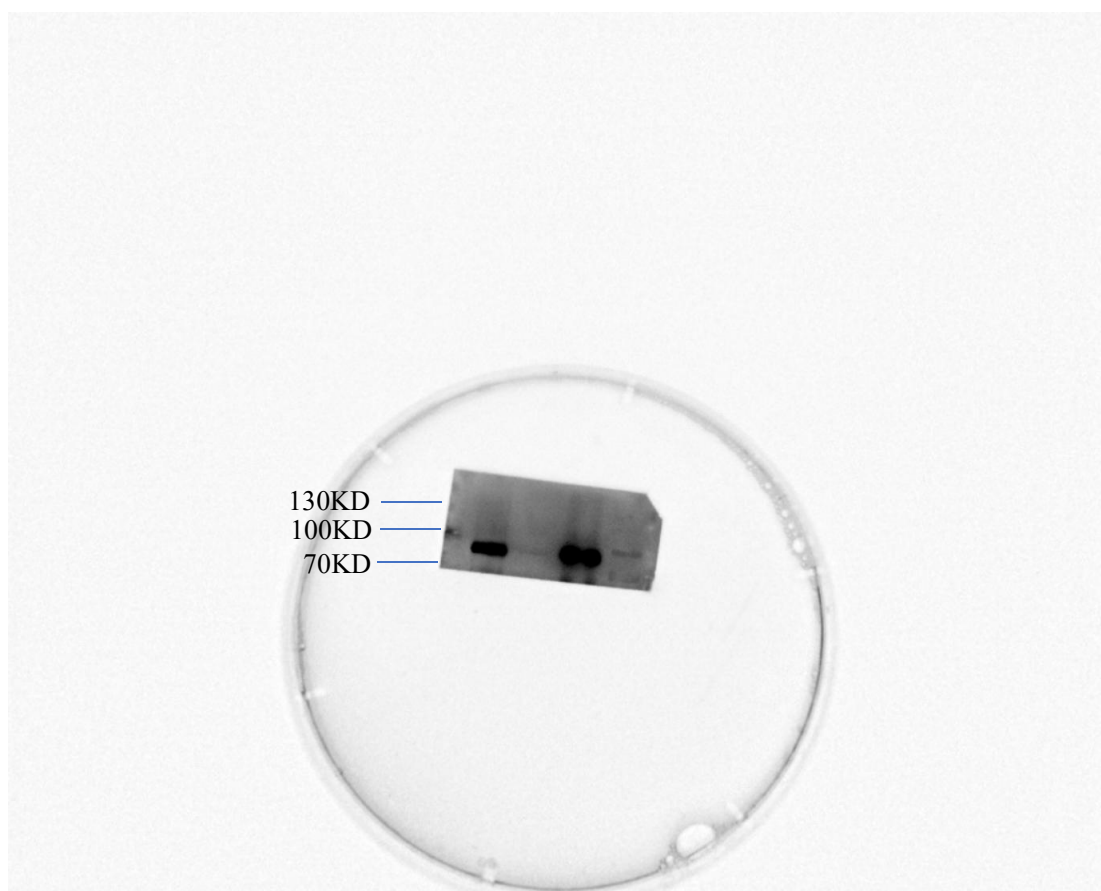


Figure4C Hep3B IP-CALD1 CALD1

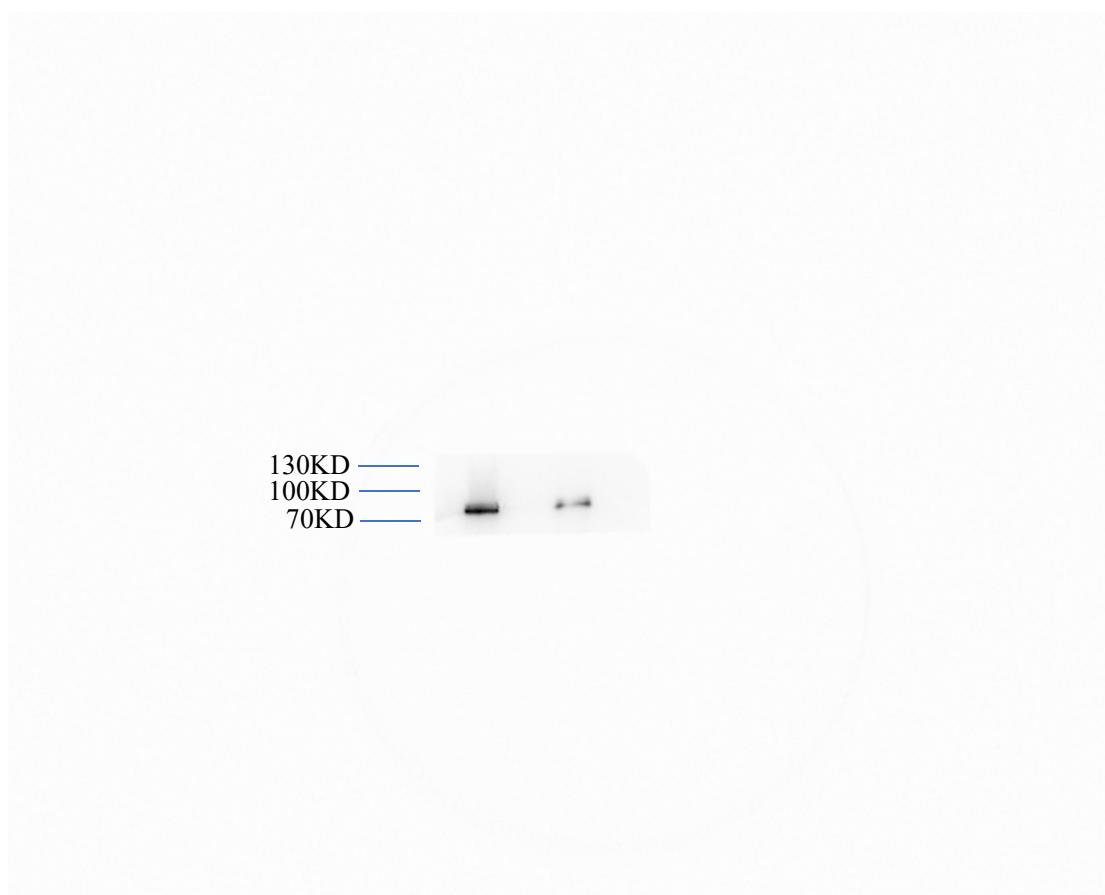


Figure4C Hep3B IP-ERK1/2 CALD1

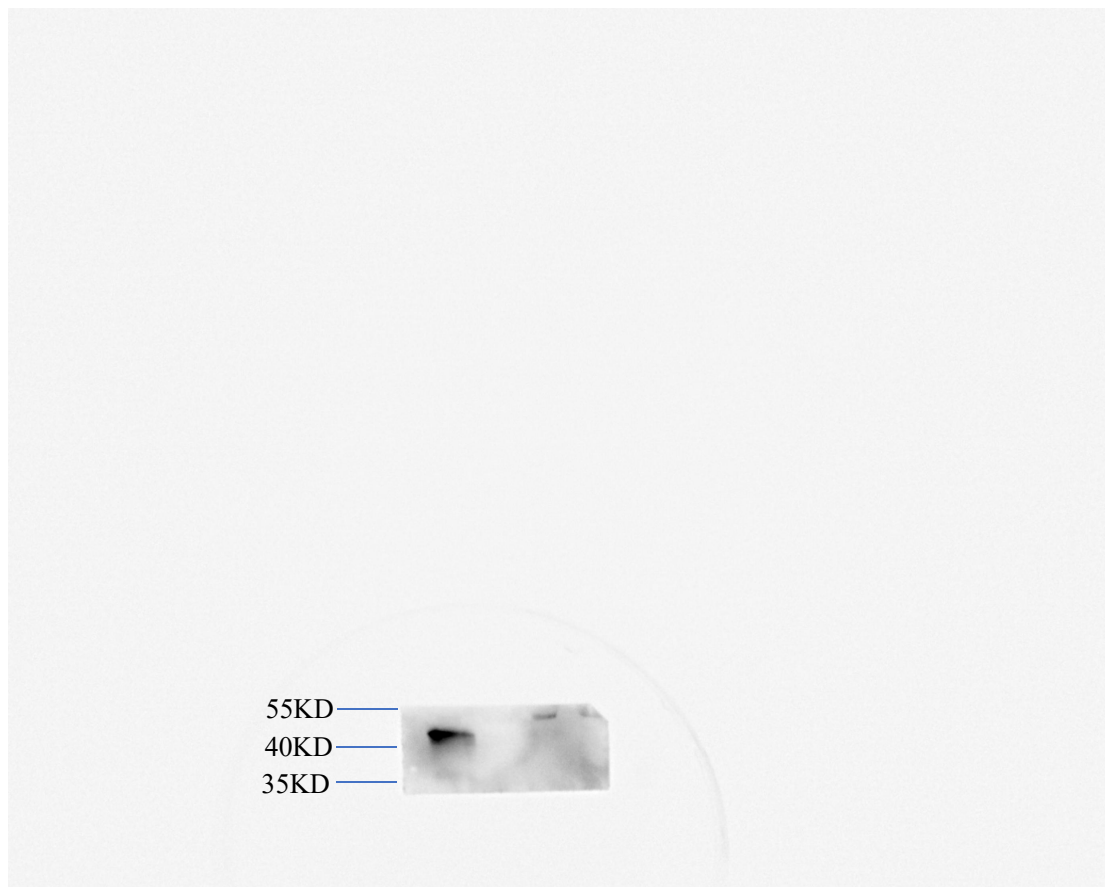


Figure4C Hep3B IP-AHSA1 ERK1/2

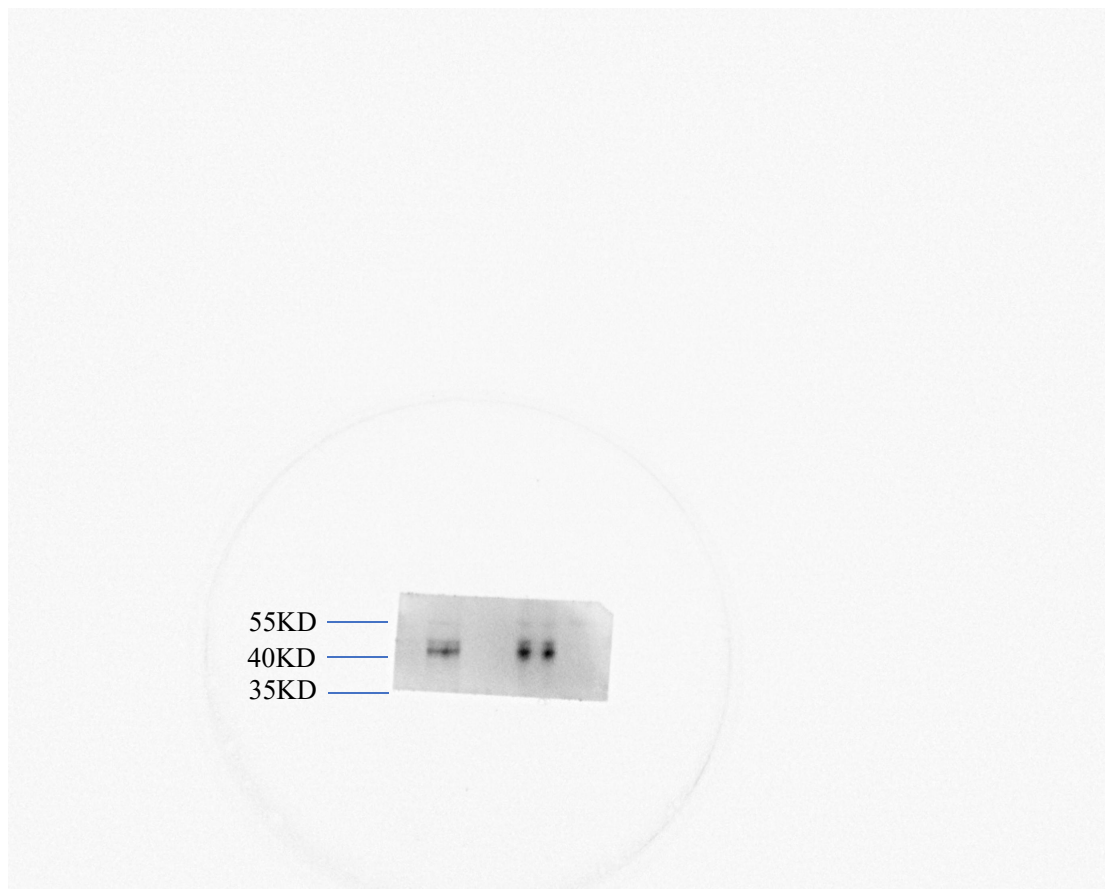


Figure4C Hep3B IP-CALD1 ERK1/2

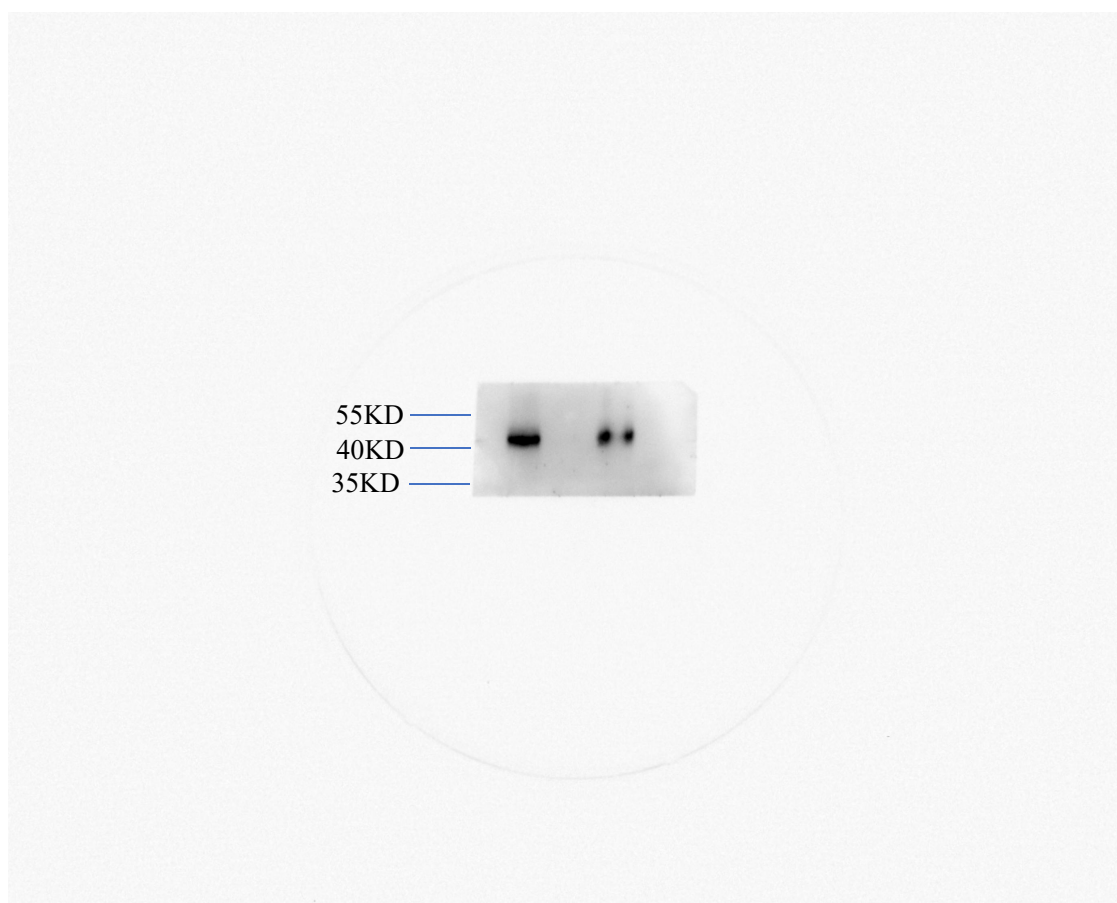


Figure4C Hep3B IP-ERK1/2 ERK1/2

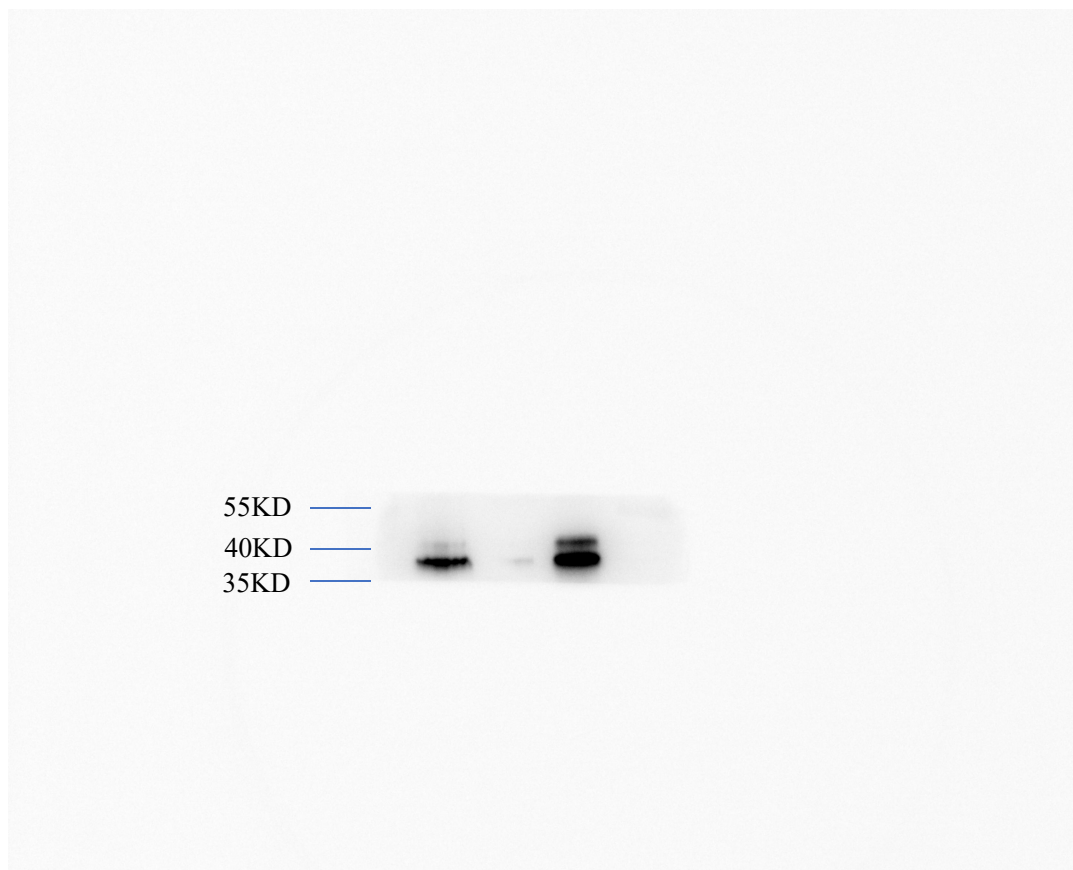


Figure4C Hep3B IP-AHSA1 AHSA1

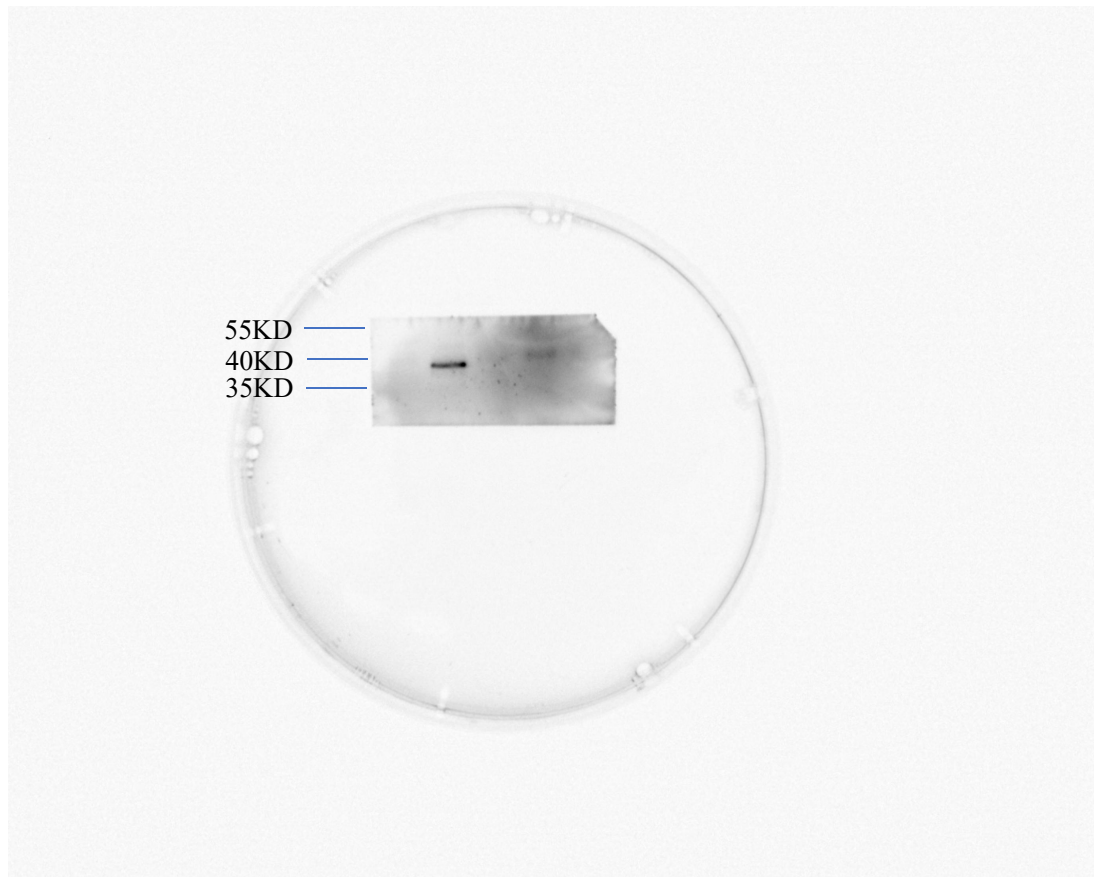


Figure4C Hep3B IP-CALD1 AHSA1

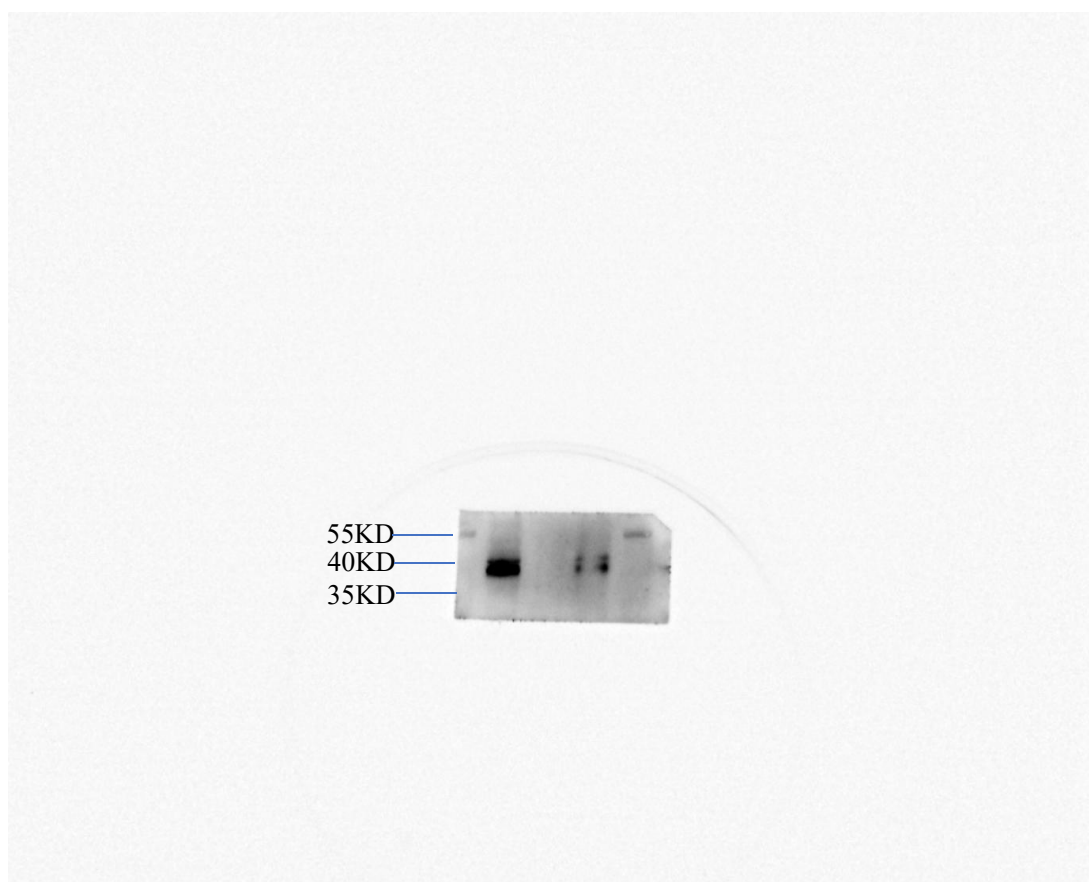


Figure4C Hep3B IP-ERK1/2 AHSA1



Figure4D HCCLM3 CALD1

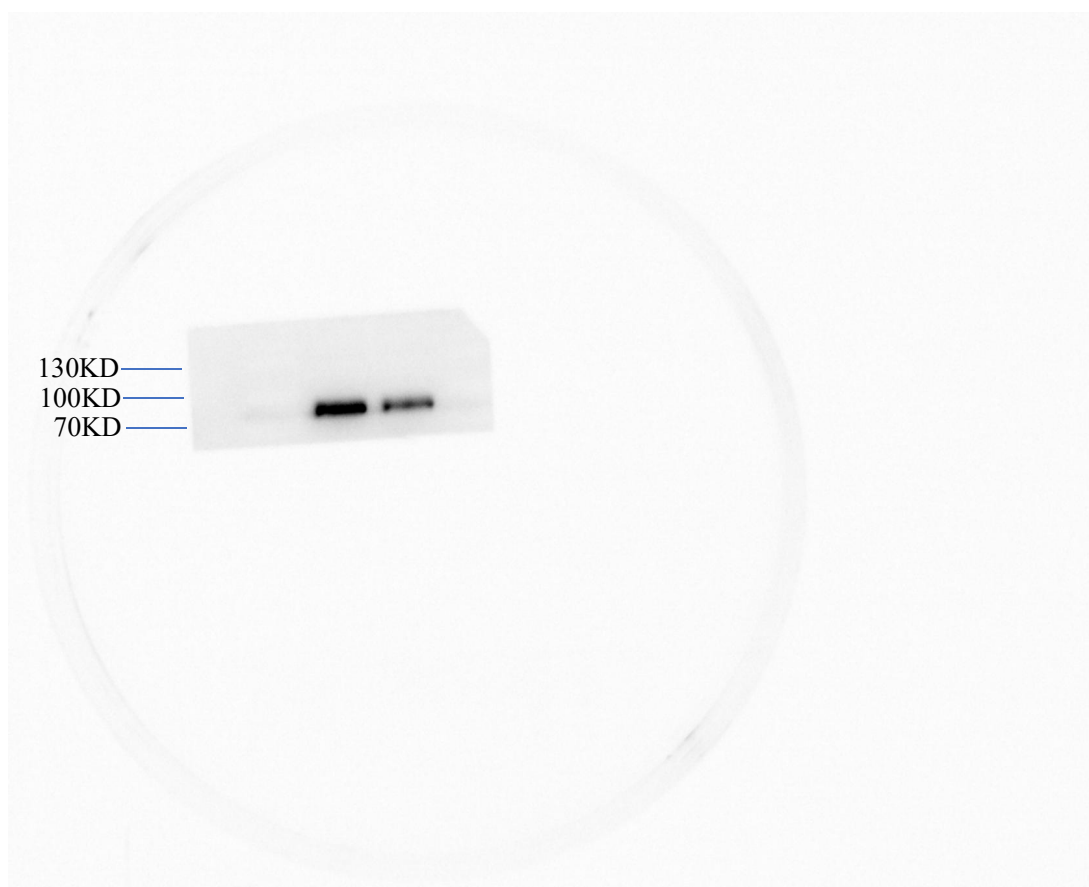


Figure4D Hep3B CALD1

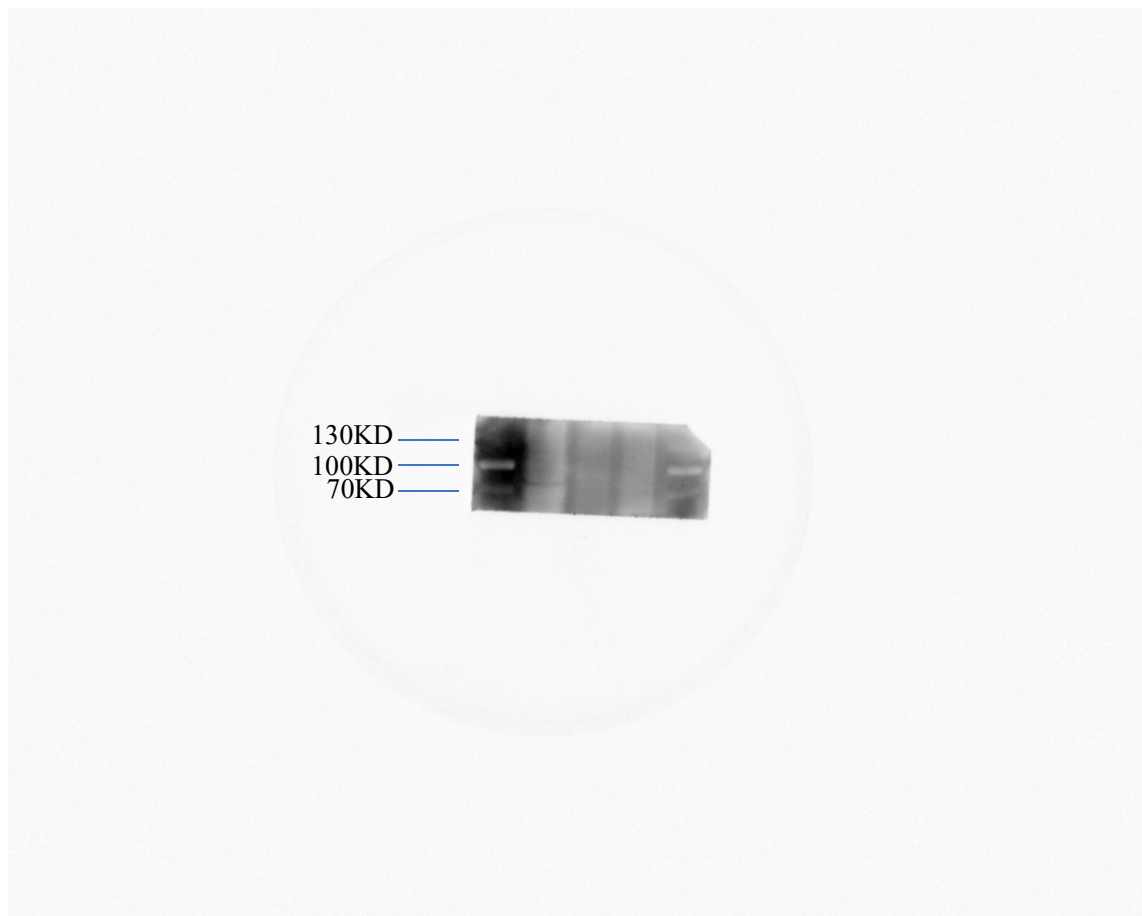


Figure4D HCCLM3 CALD1(phosphoSer759)

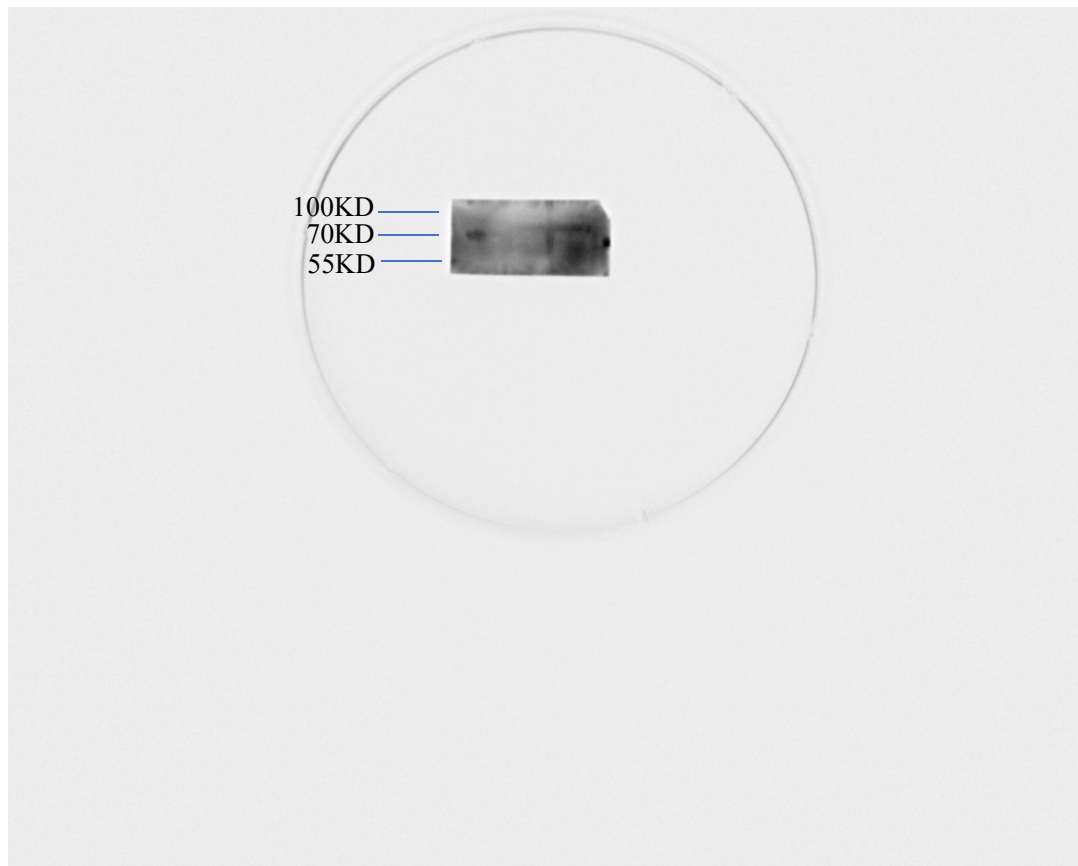


Figure4D Hep3B CALD1(phosphoSer759)

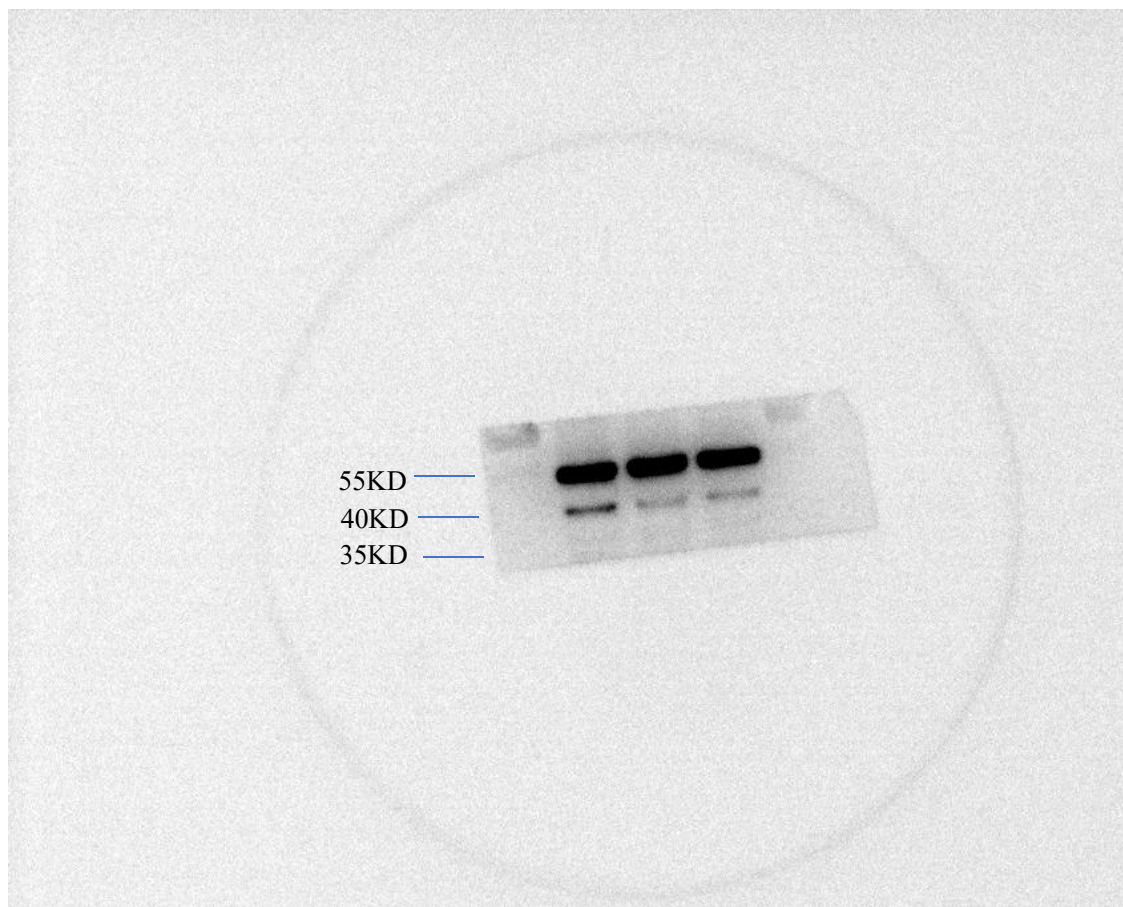


Figure4D HCCLM3 β -tubulin

Figure4D HCCLM3 AHSA1



Figure4D Hep3B β -tubulin

Figure4D Hep3B AHSA1



Figure4D HCCLM3 ERK1/2

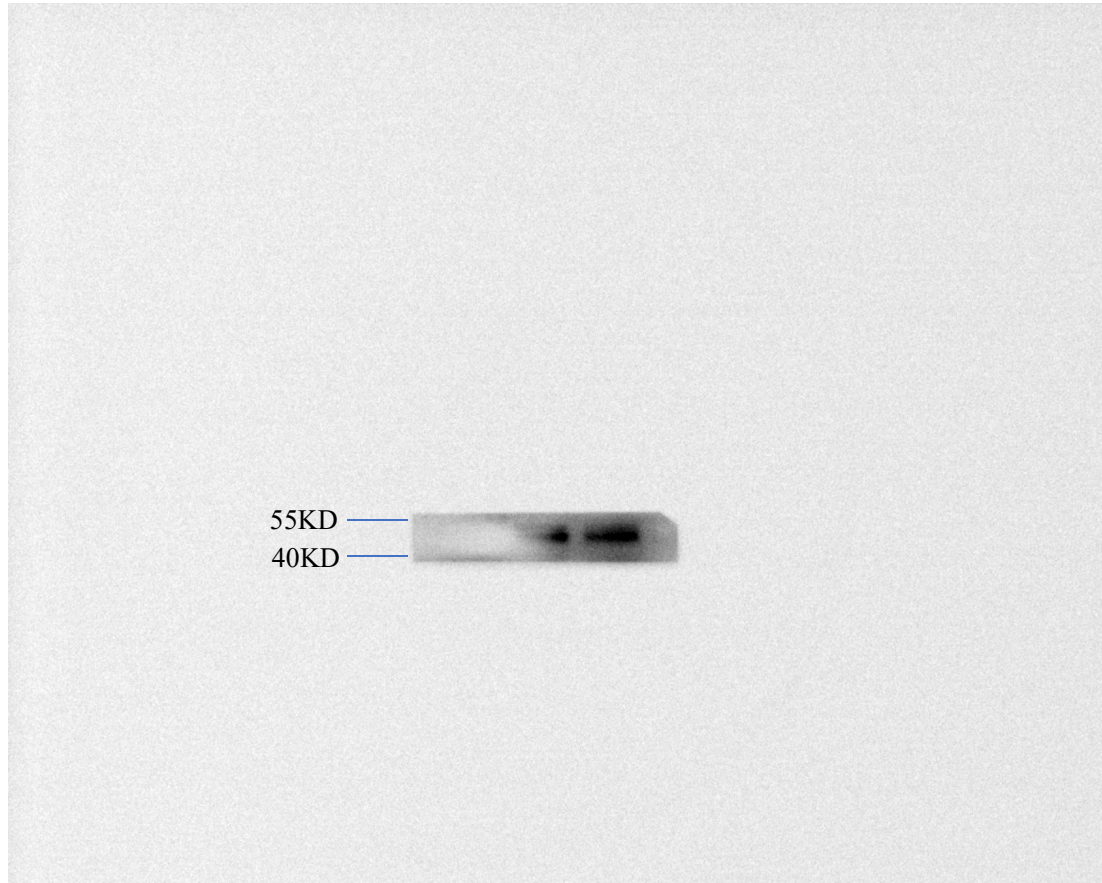


Figure4D Hep3B ERK1/2



Figure4D HCCLM3 ERK1/2(phosphoThr202/Tyr204)

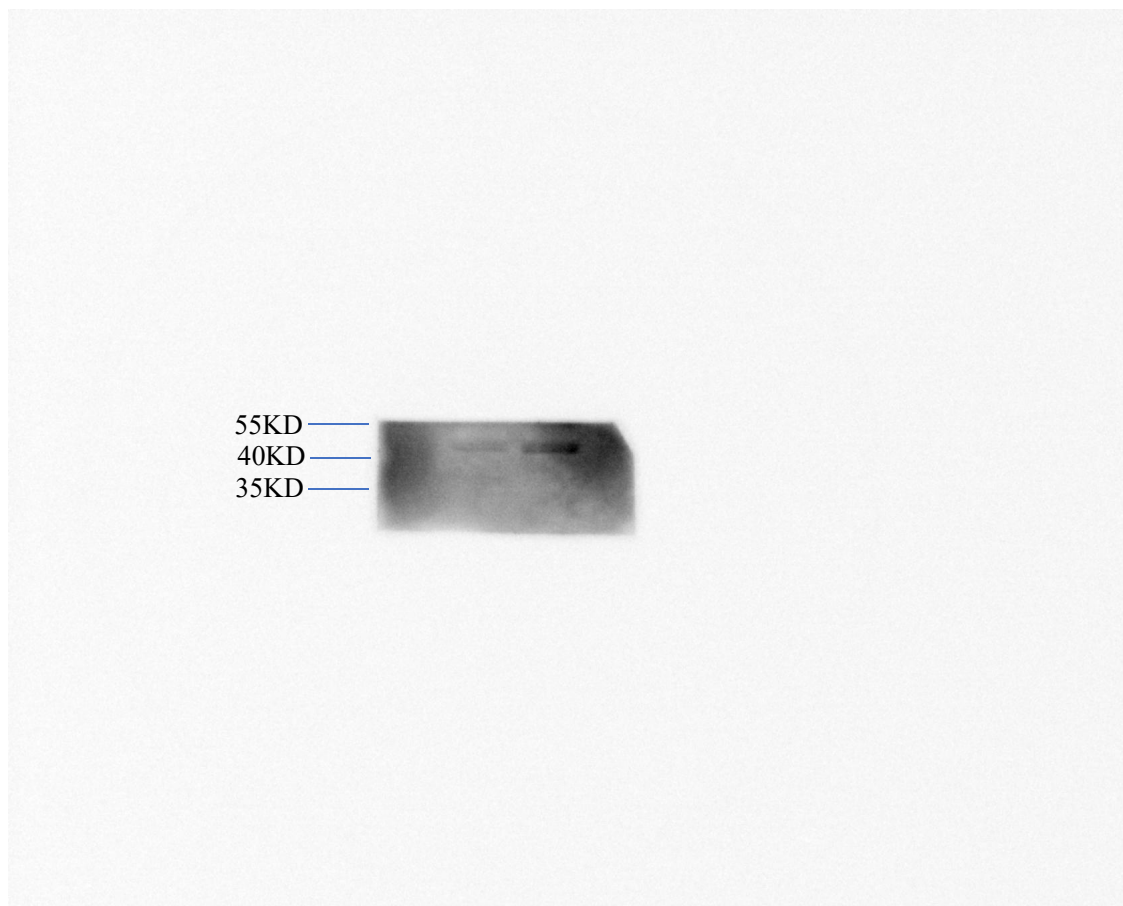


Figure4D Hep3B ERK1/2(phosphoThr202/Tyr204)

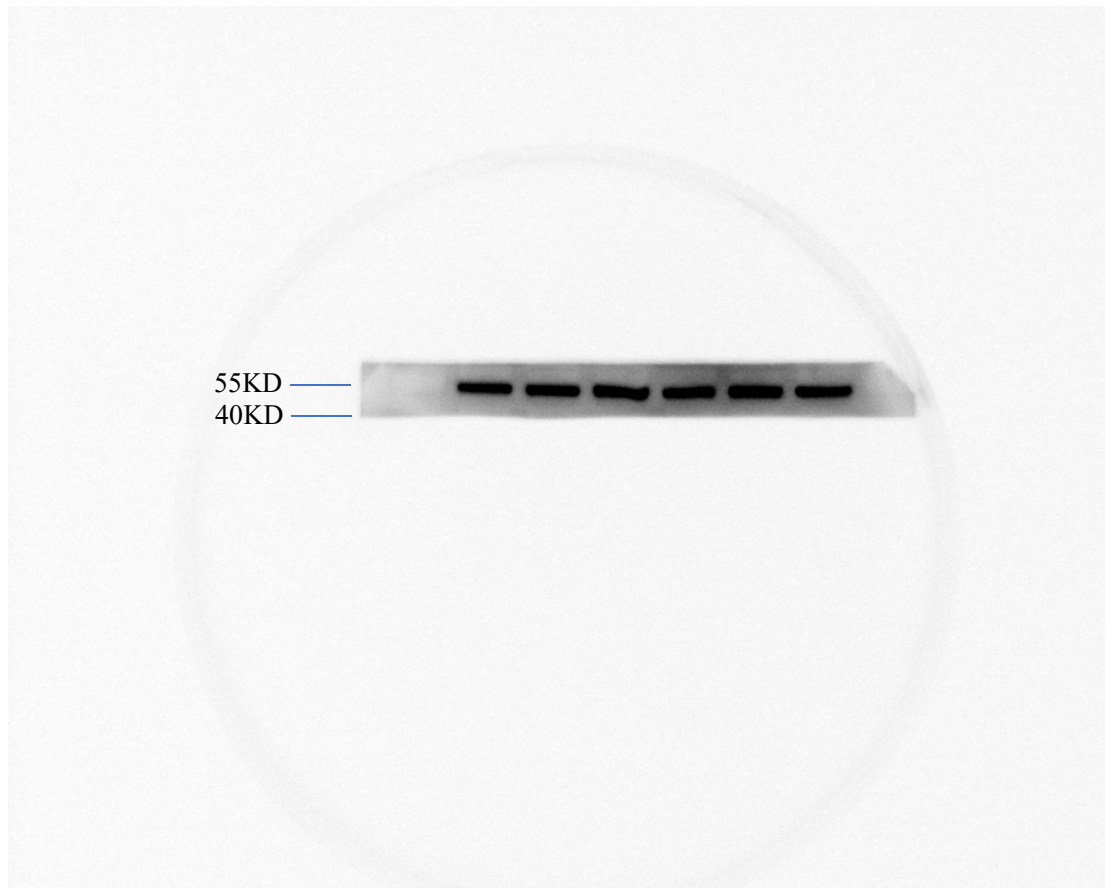


Figure4E β -tubulin

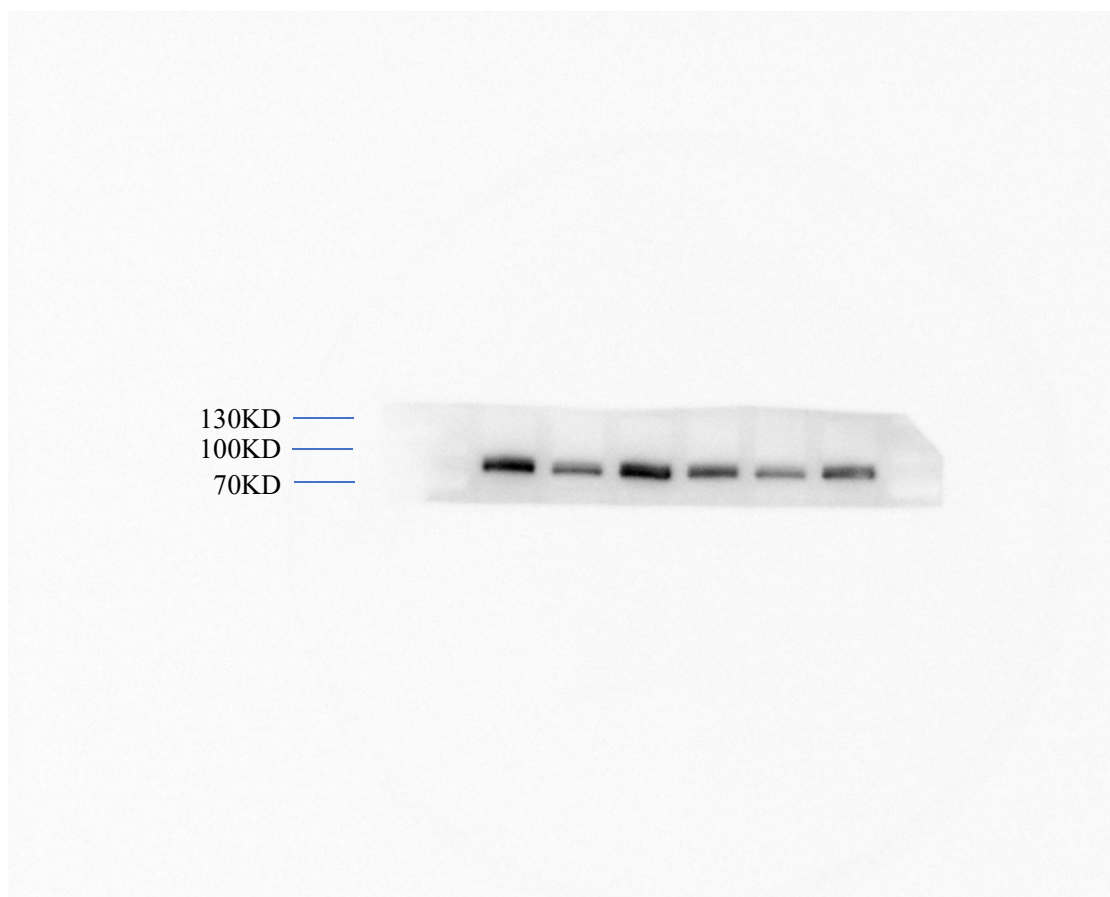


Figure4E CALD1



Figure5A β -tubulin

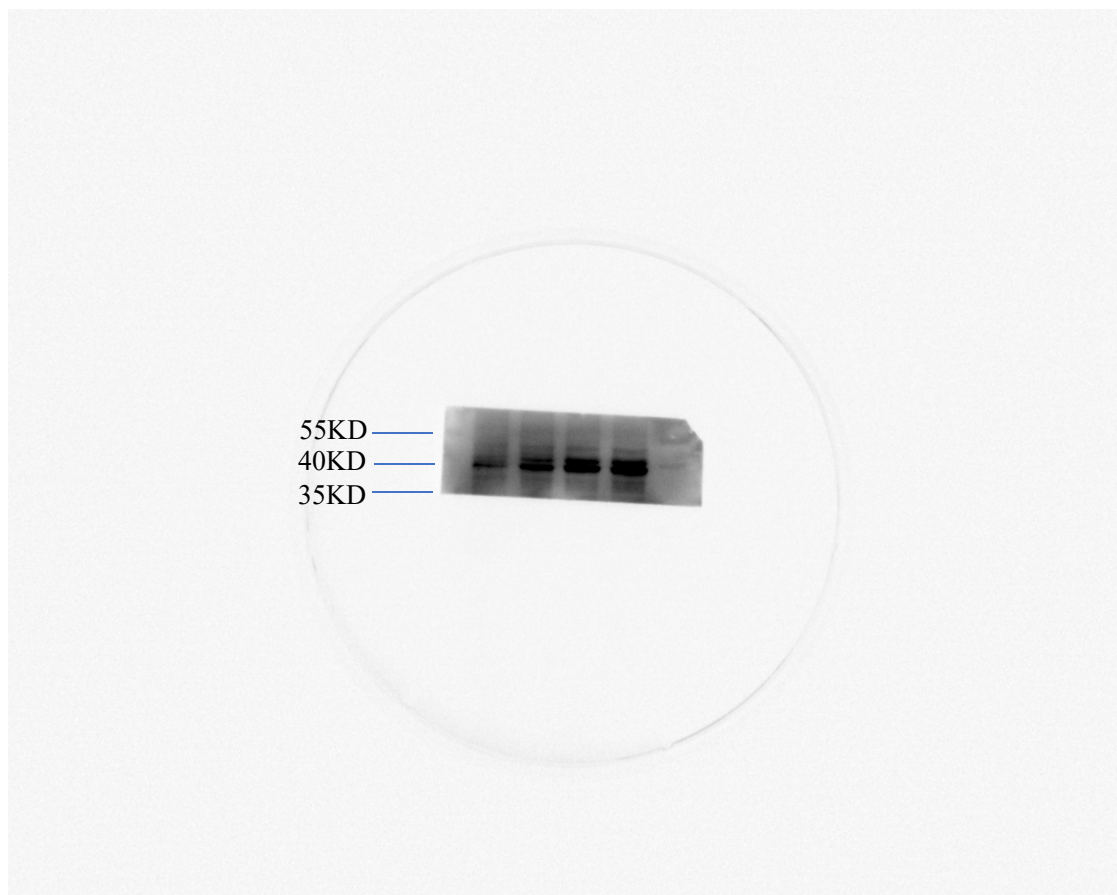


Figure5A ERK1/2



Figure5A Hep3B ERK1/2(phosphoThr202/Tyr204)

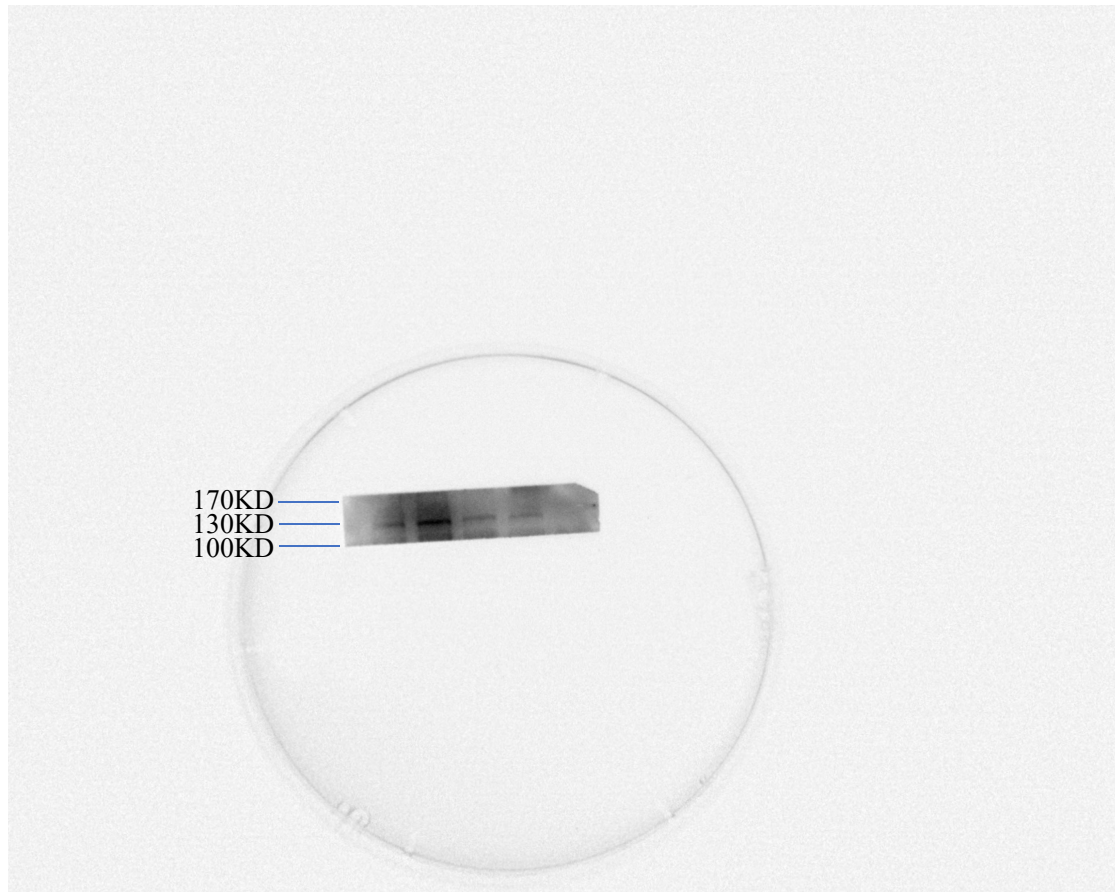


Figure5H Hep3B N-cadherin

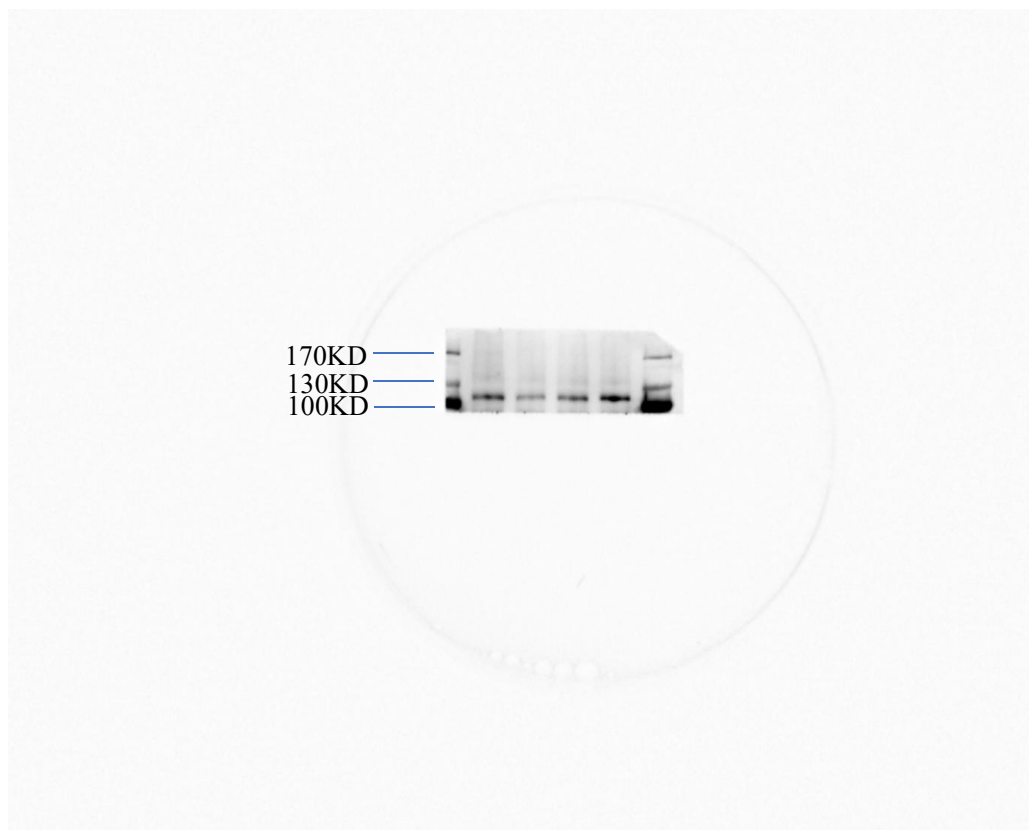


Figure5H Hep3B E-cadherin

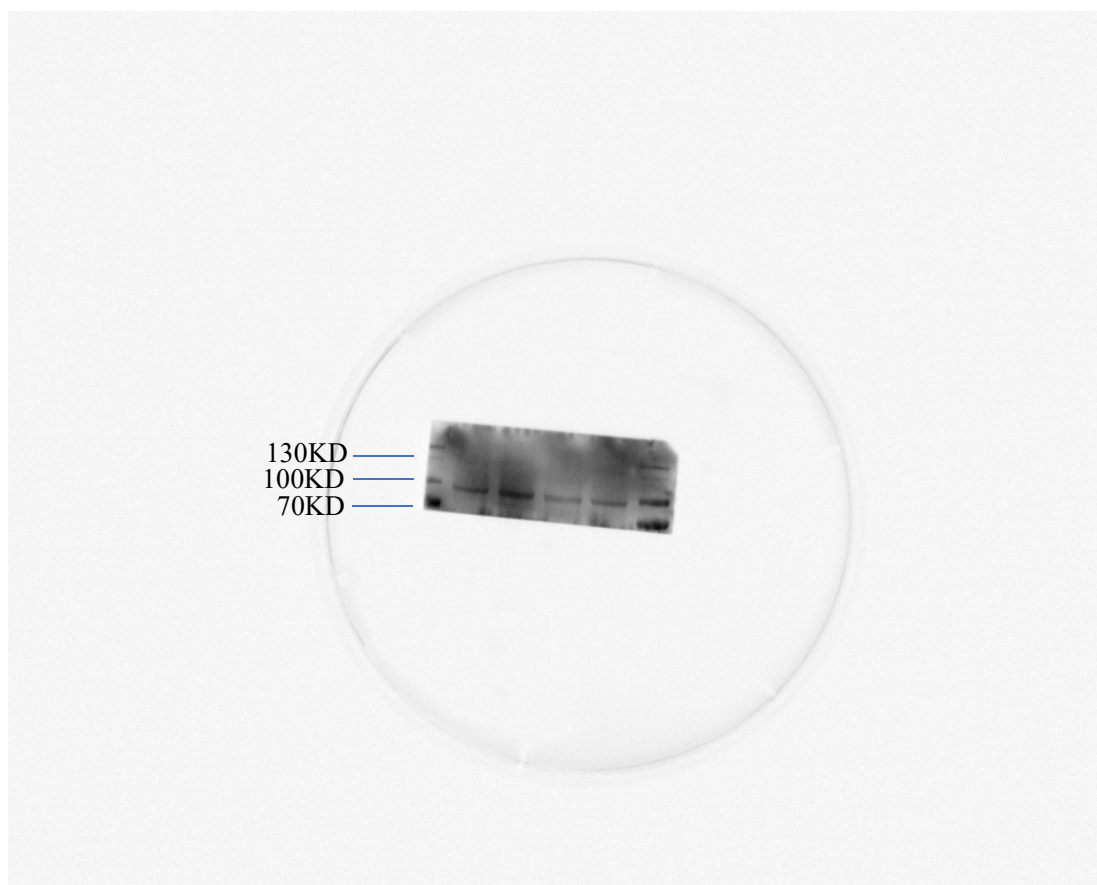


Figure5H Hep3B CALD1(phosphoSer759)

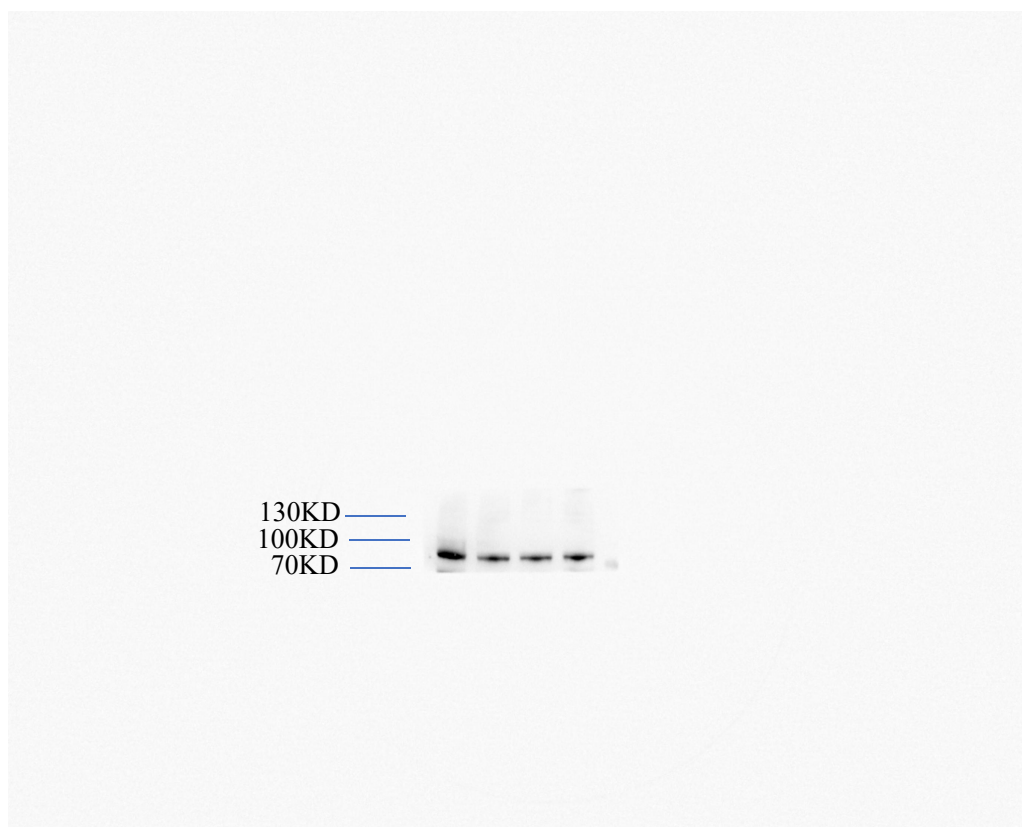


Figure5H Hep3B CALD1



Figure5H Hep3B β -tubulin

Figure5H Hep3B AHSA1



Figure5H Hep3B vimentin

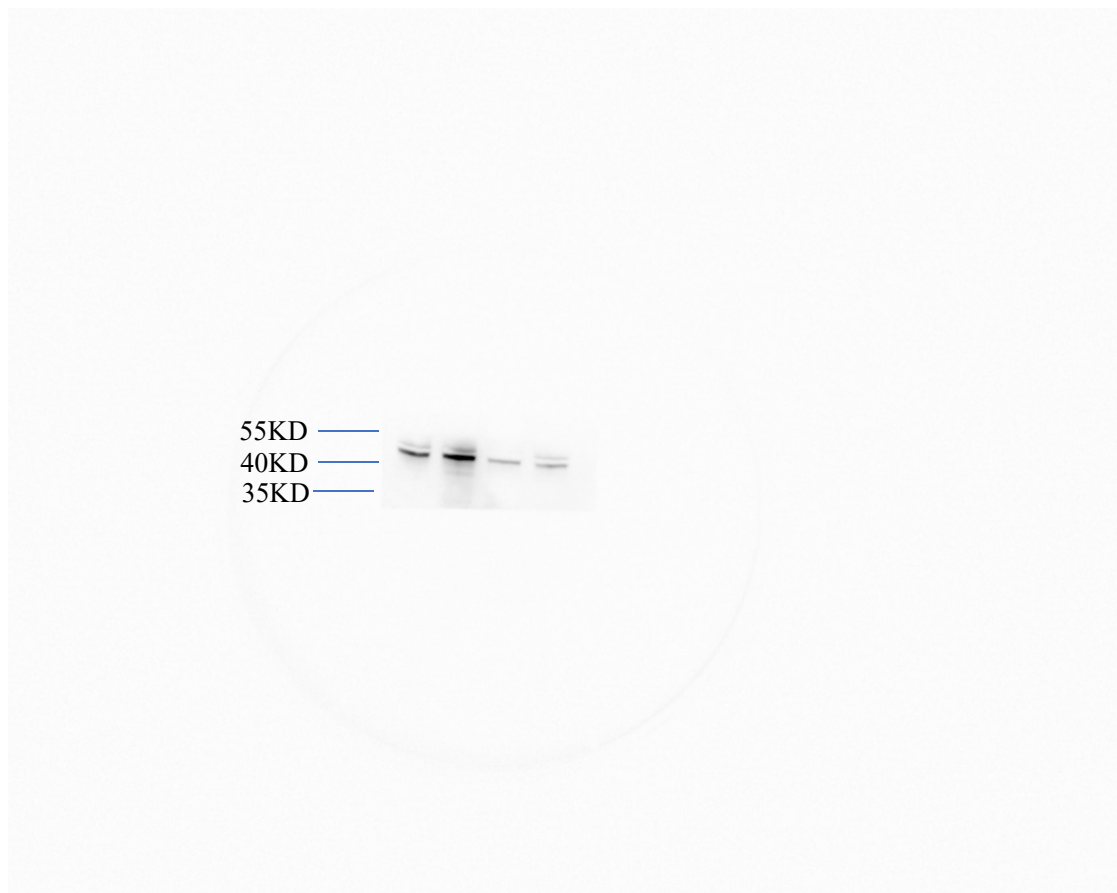


Figure5H Hep3B ERK1/2(phosphoThr202/Tyr204)



Figure5H Hep3B ERK1/2

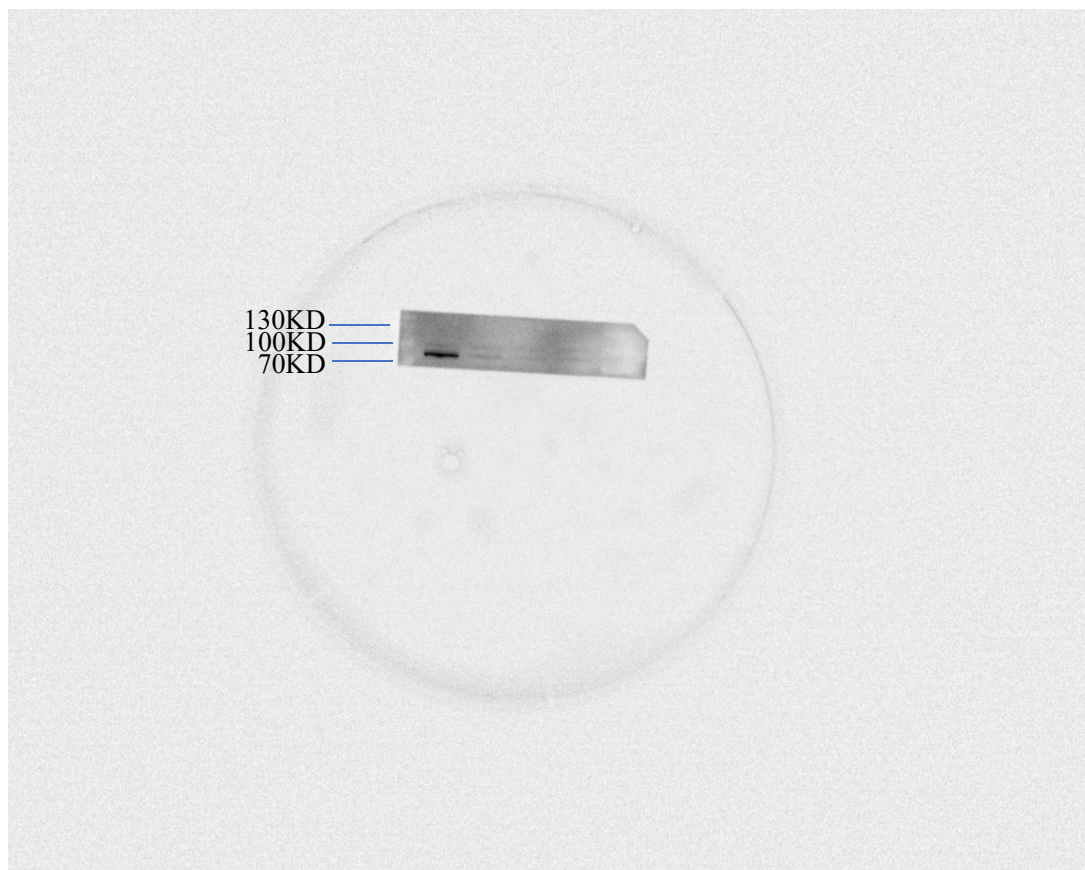


Figure6A HCCLM3 CALD1

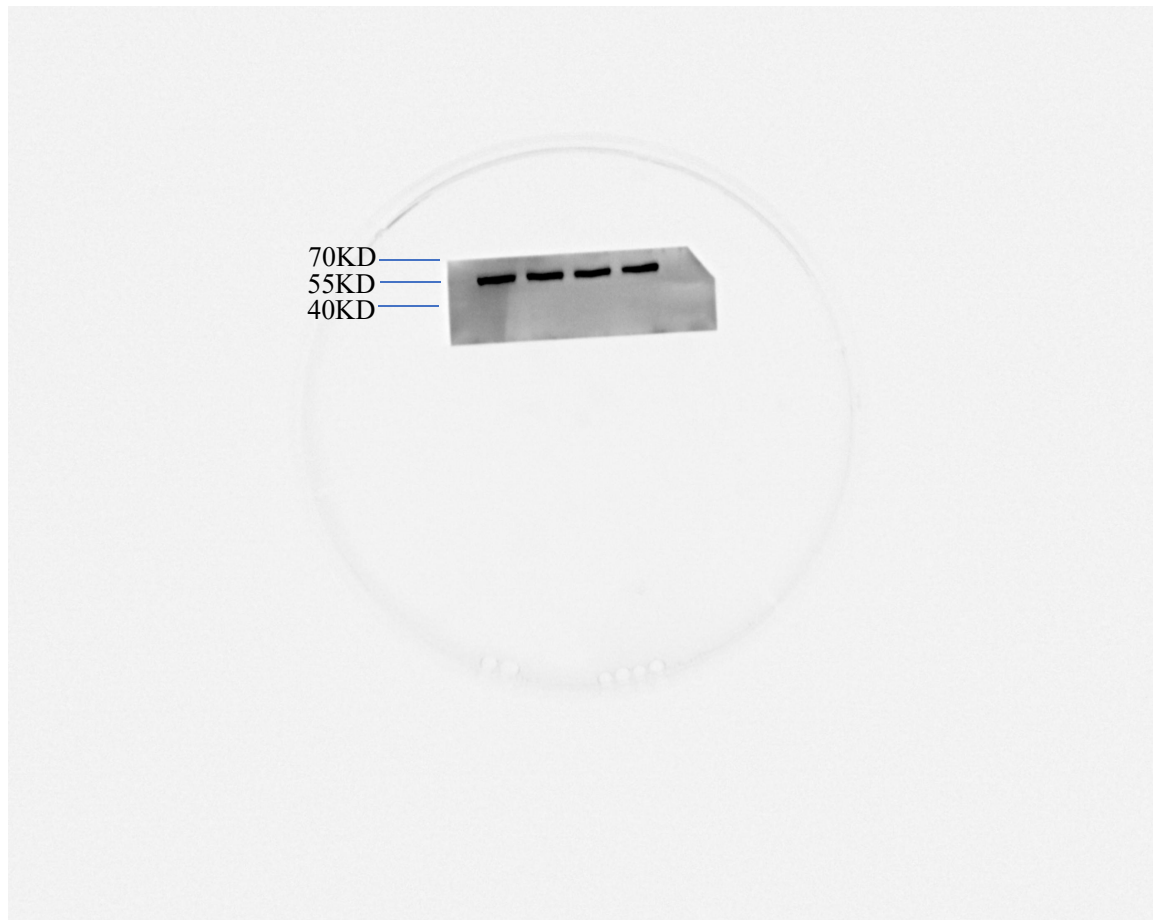


Figure6A HCCLM3 β -tubulin

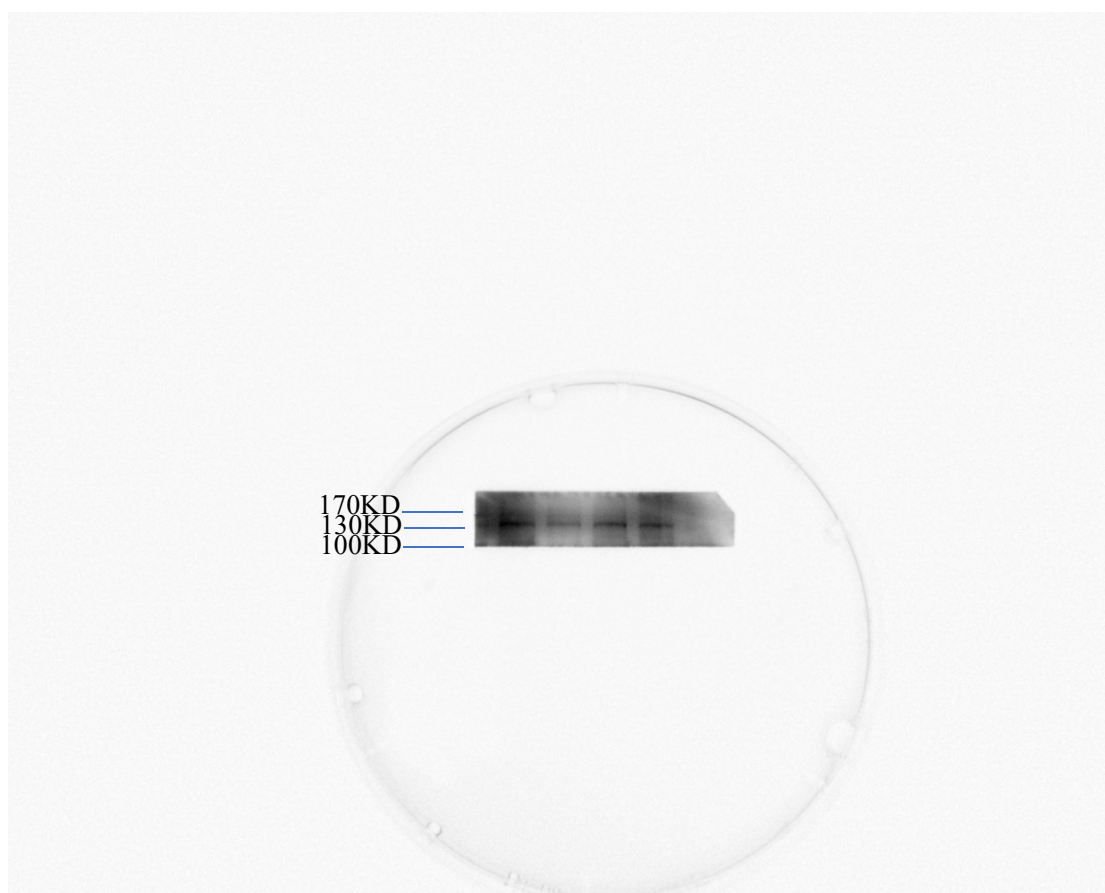


Figure6H HCCLM3 N-cadherin

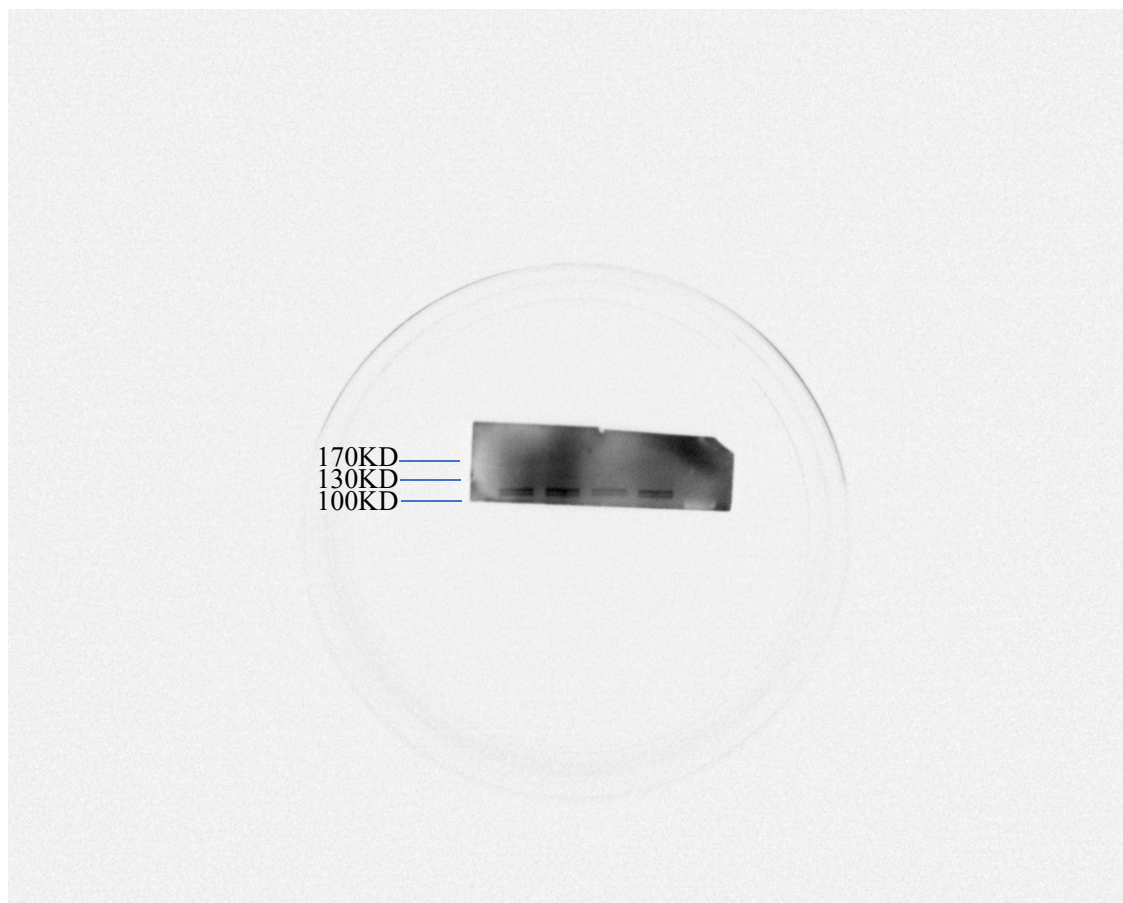


Figure6H HCCLM3 E-cadherin

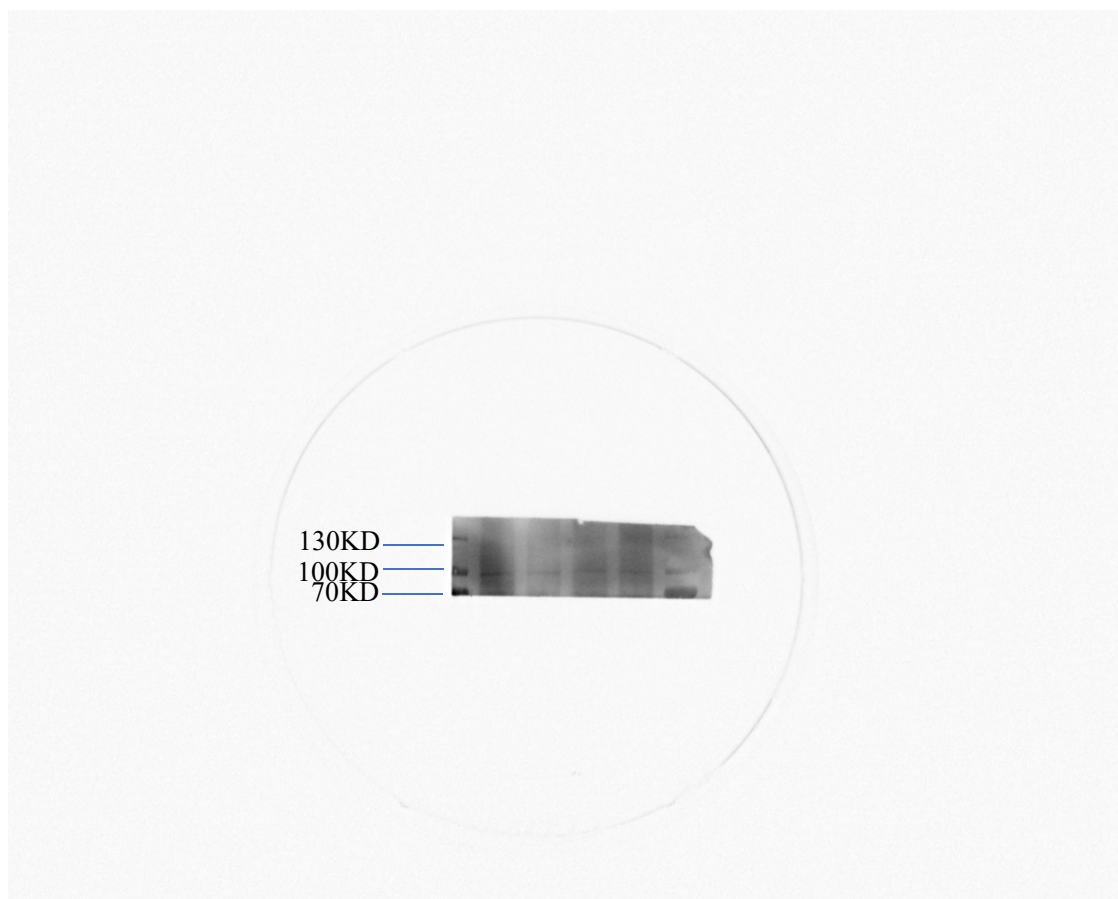


Figure6H HCCLM3 CALD1(phosphoSer759)

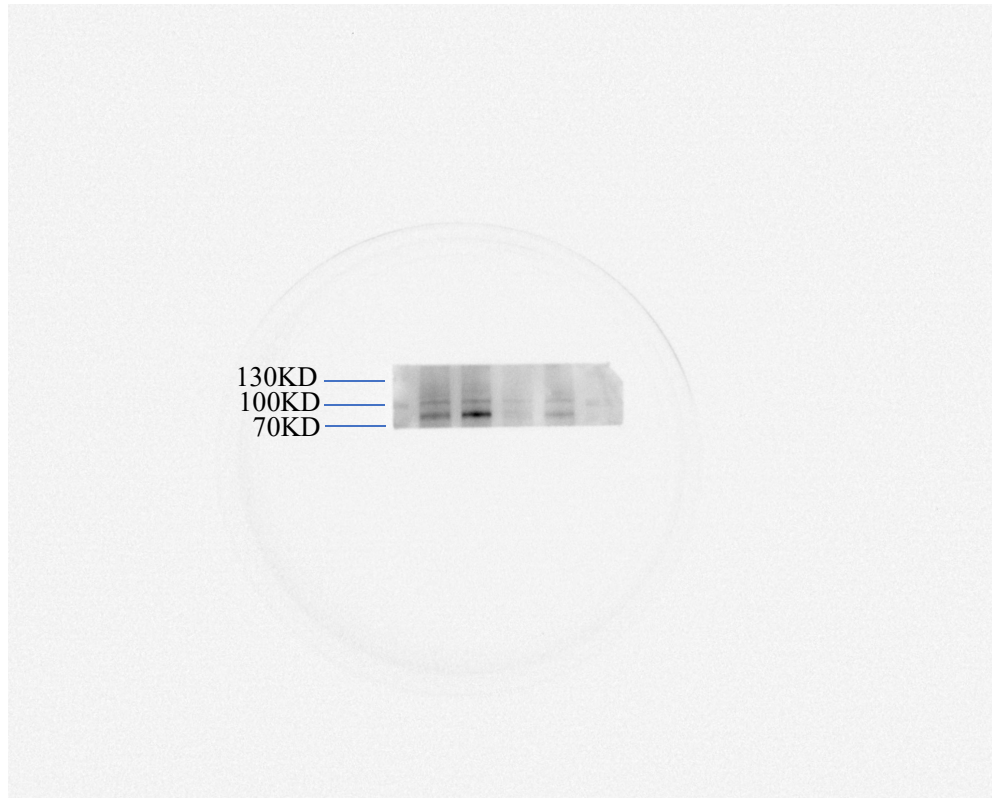


Figure6H HCCLM3 CALD1

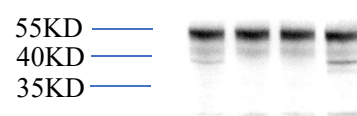


Figure6H HCCLM3 β -tubulin
Figure6H HCCLM3 AHSA1

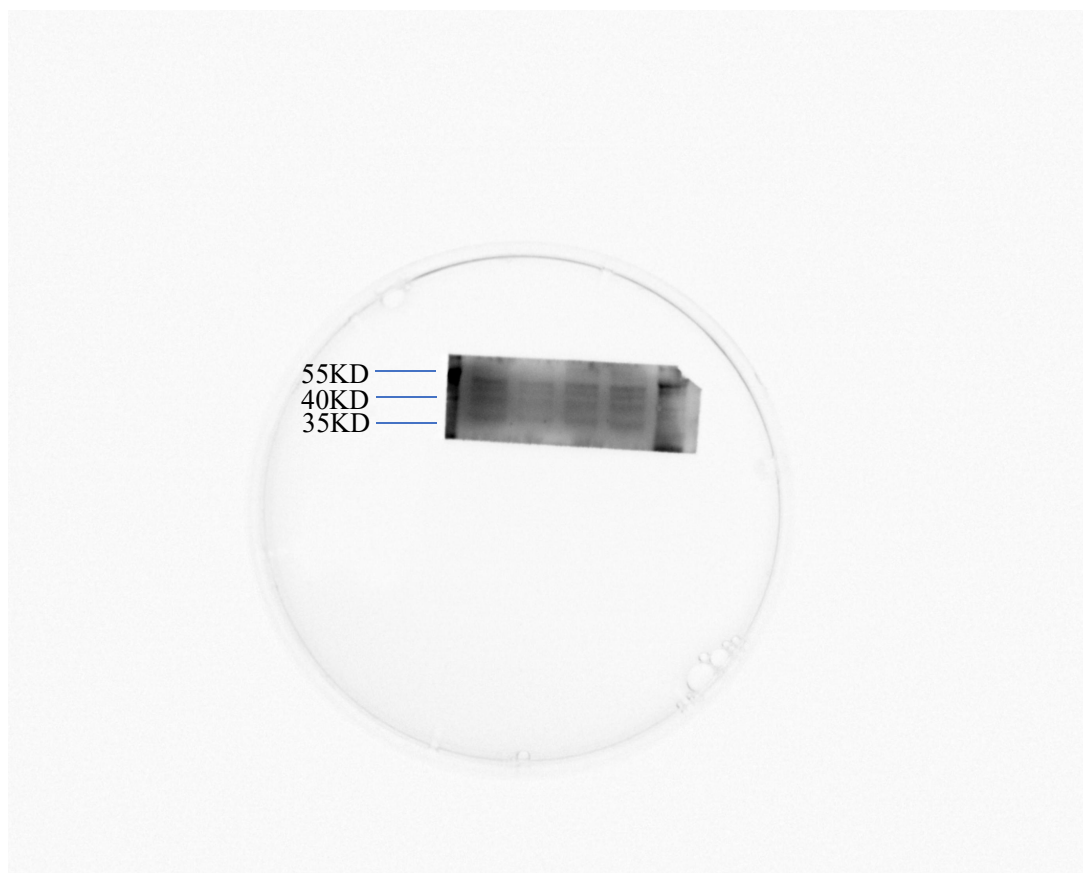


Figure6H HCCLM3 vimentin

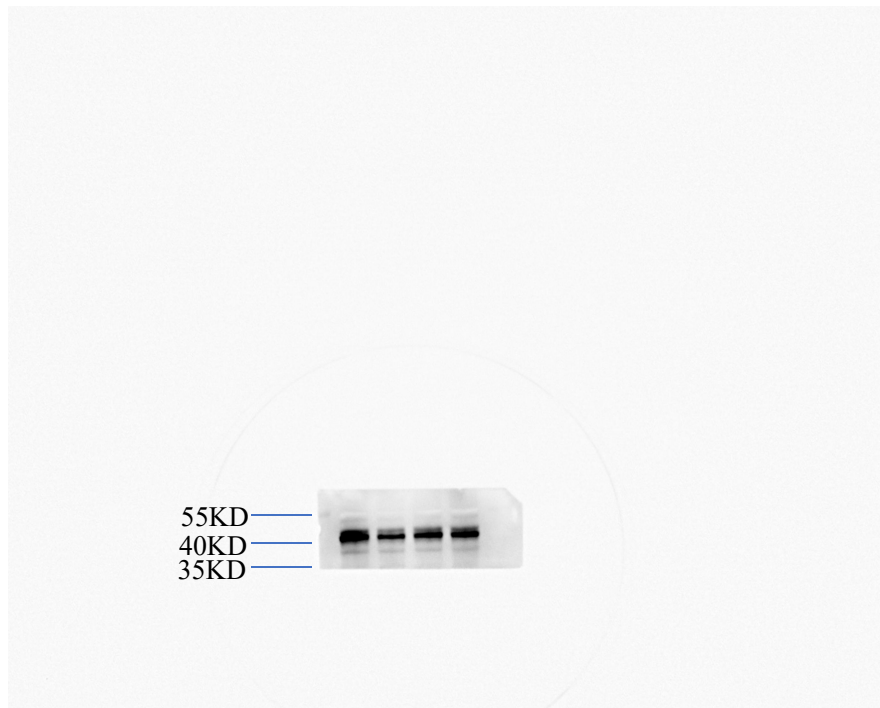


Figure6H HCCLM3 ERK1/2(phosphoThr202/Tyr204)

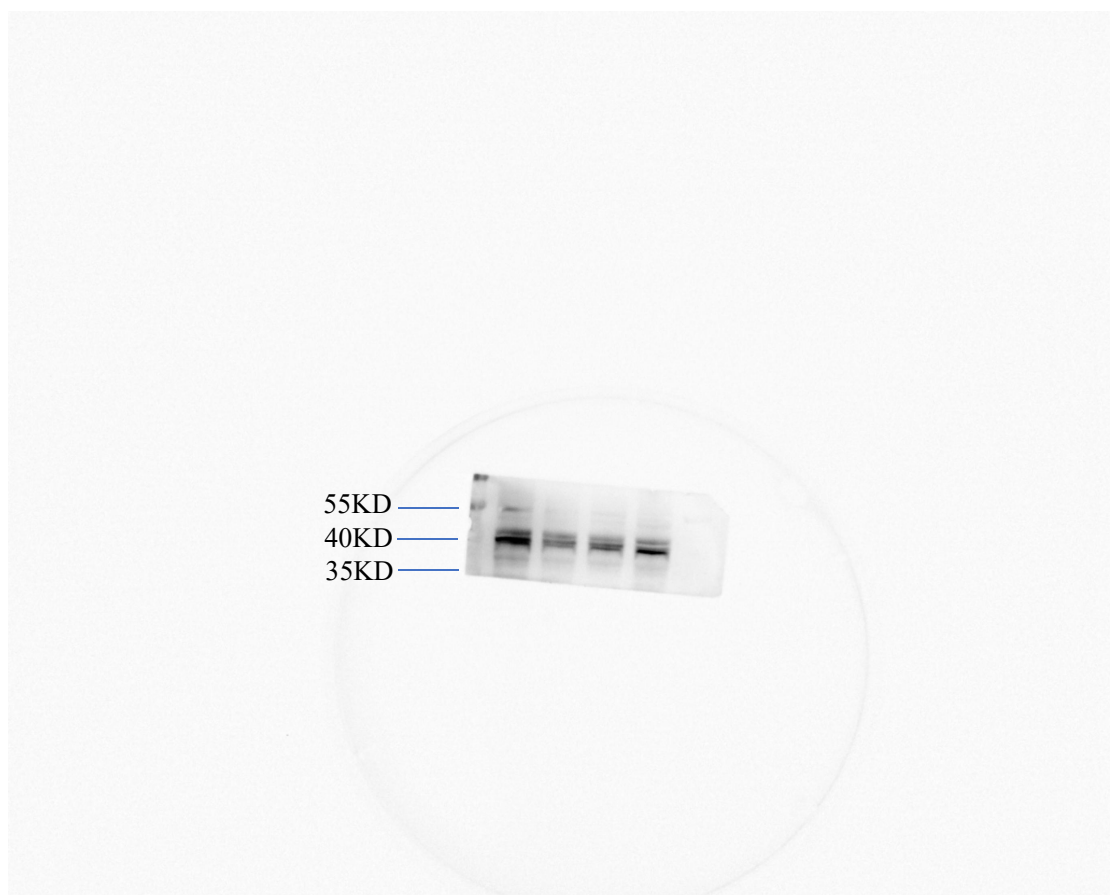
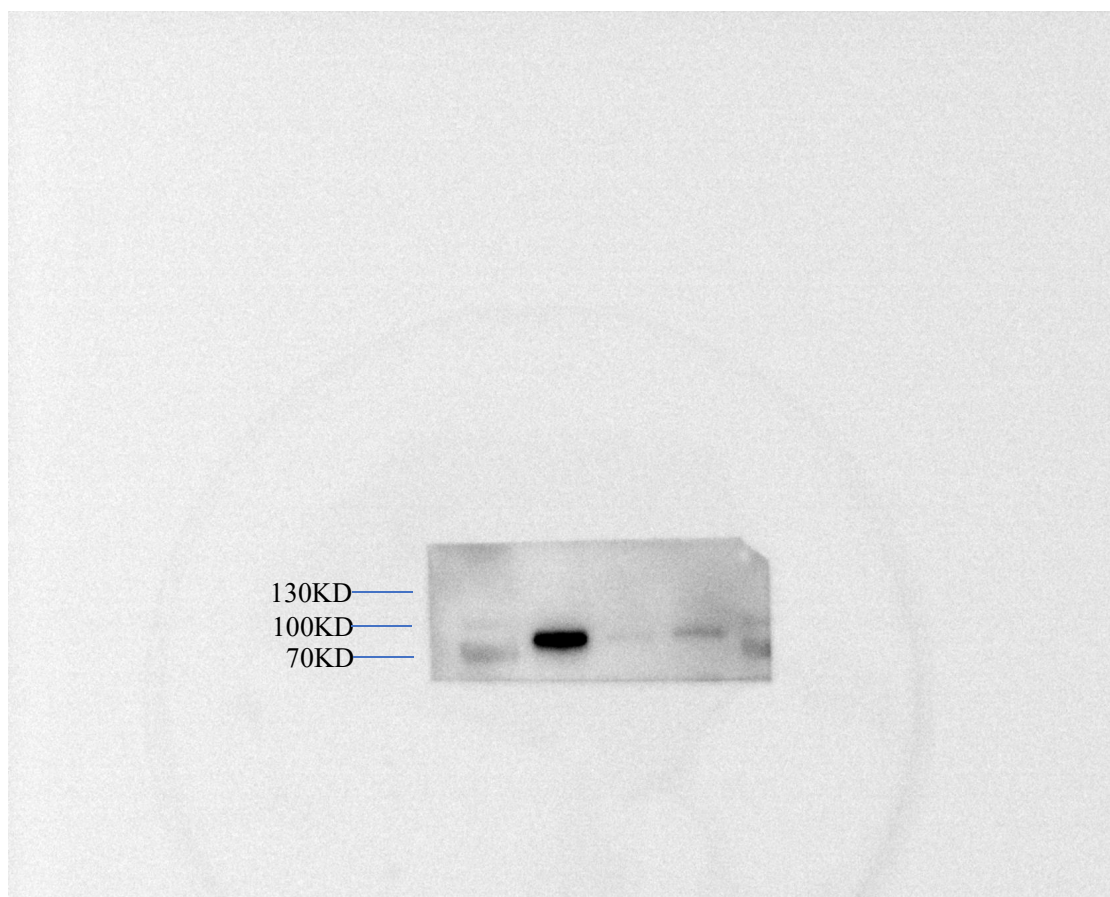
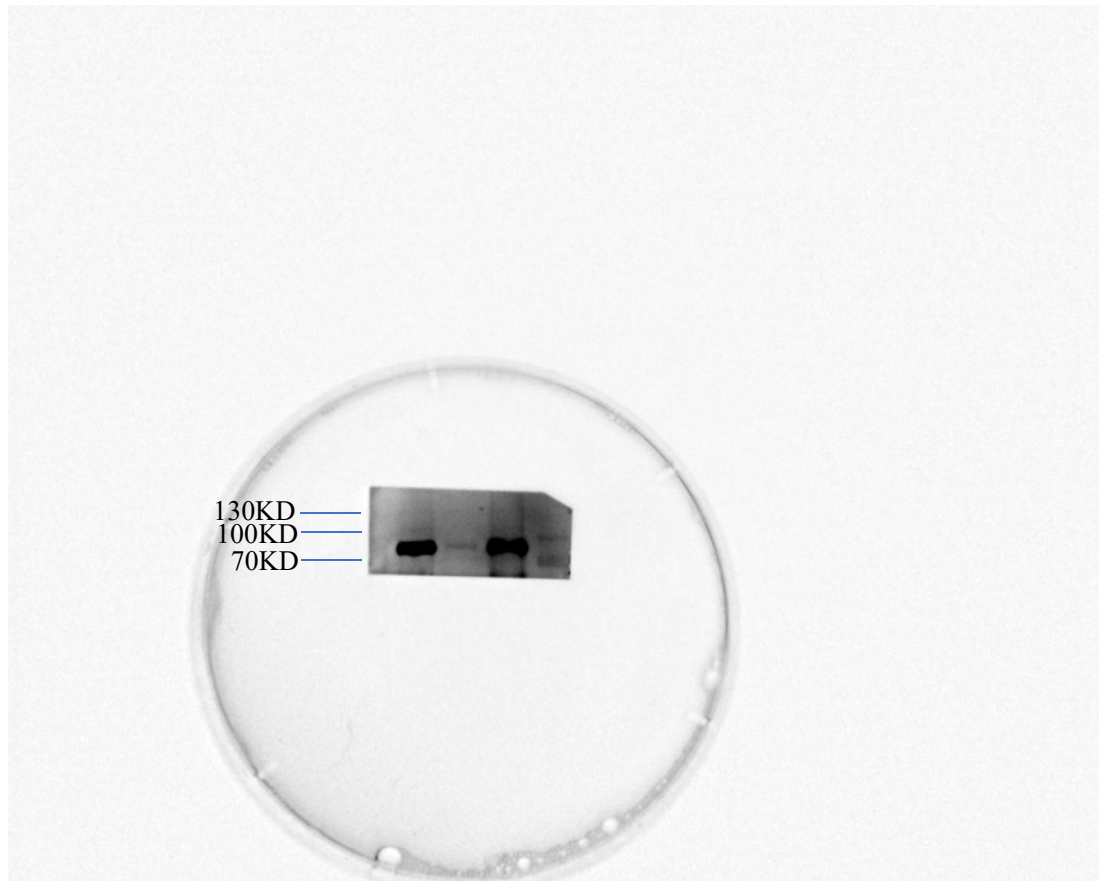


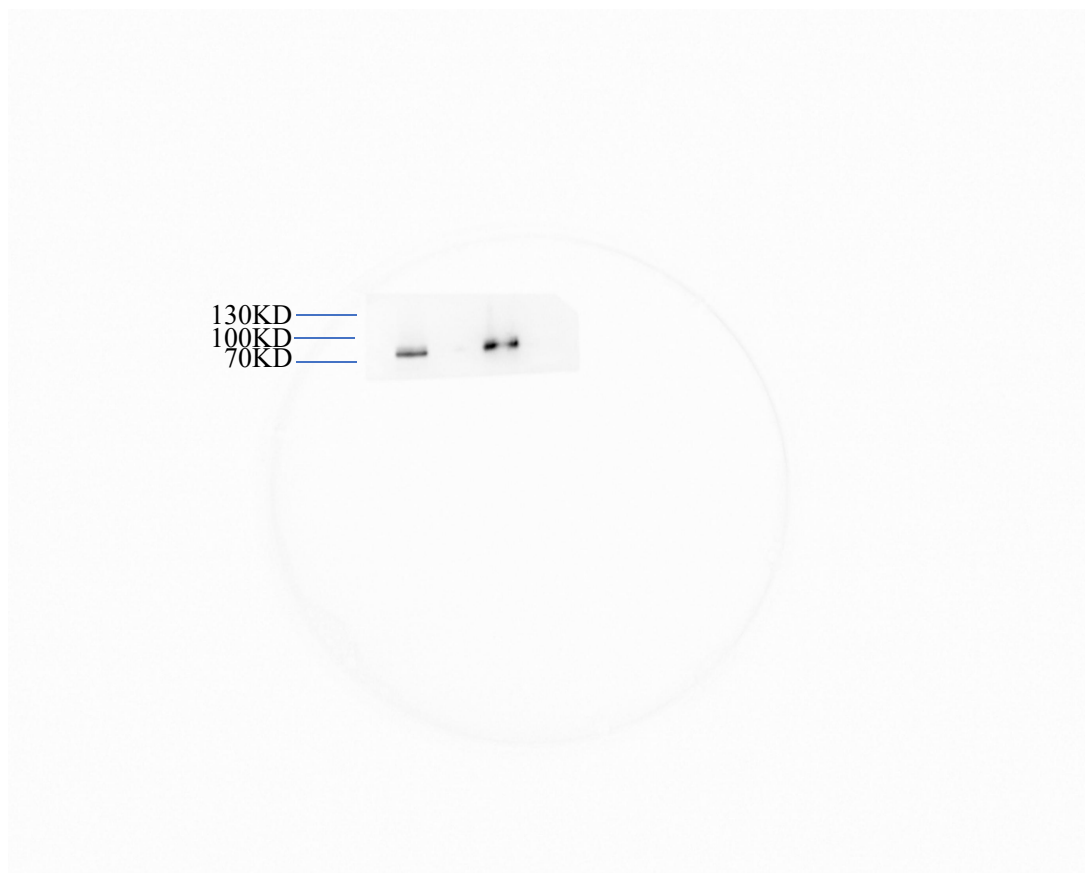
Figure6H HCCLM3 ERK1/2



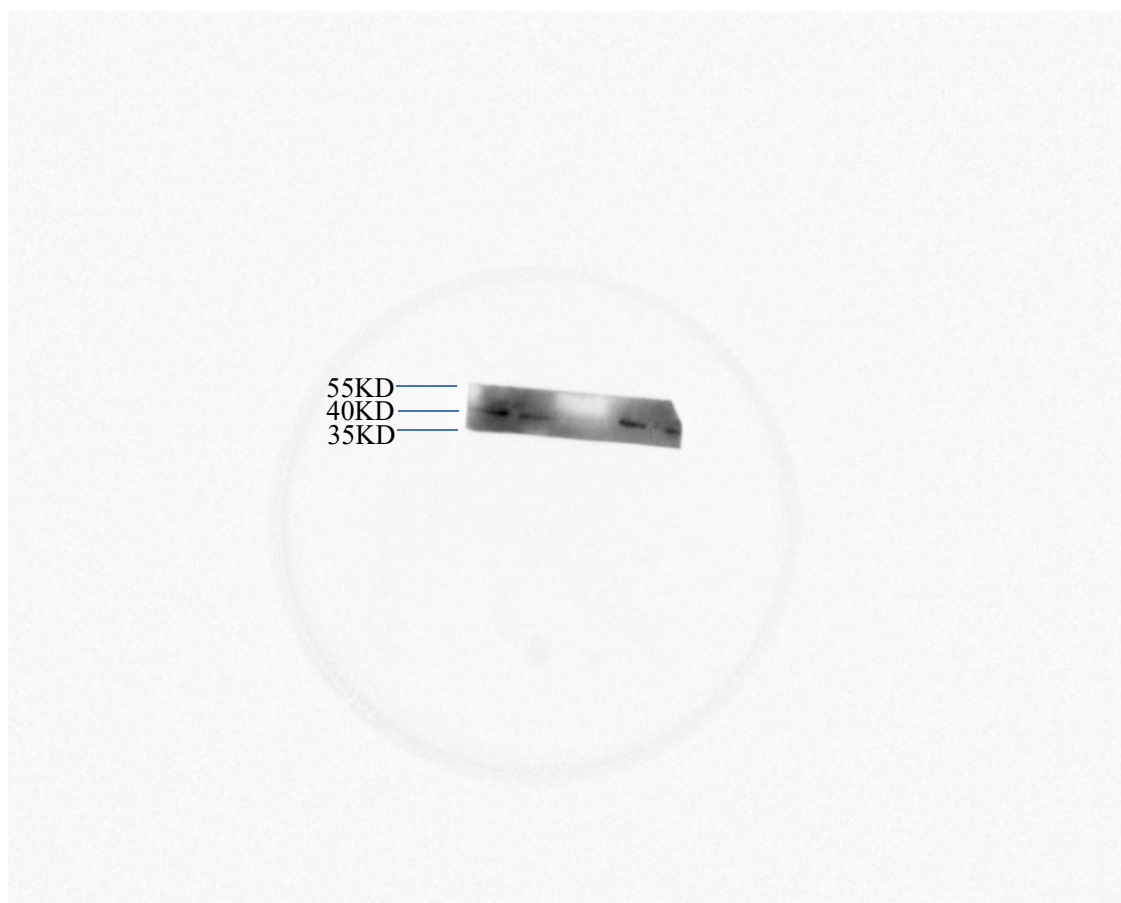
FigureS3A Huh-7 IP-AHSA1 CALD1



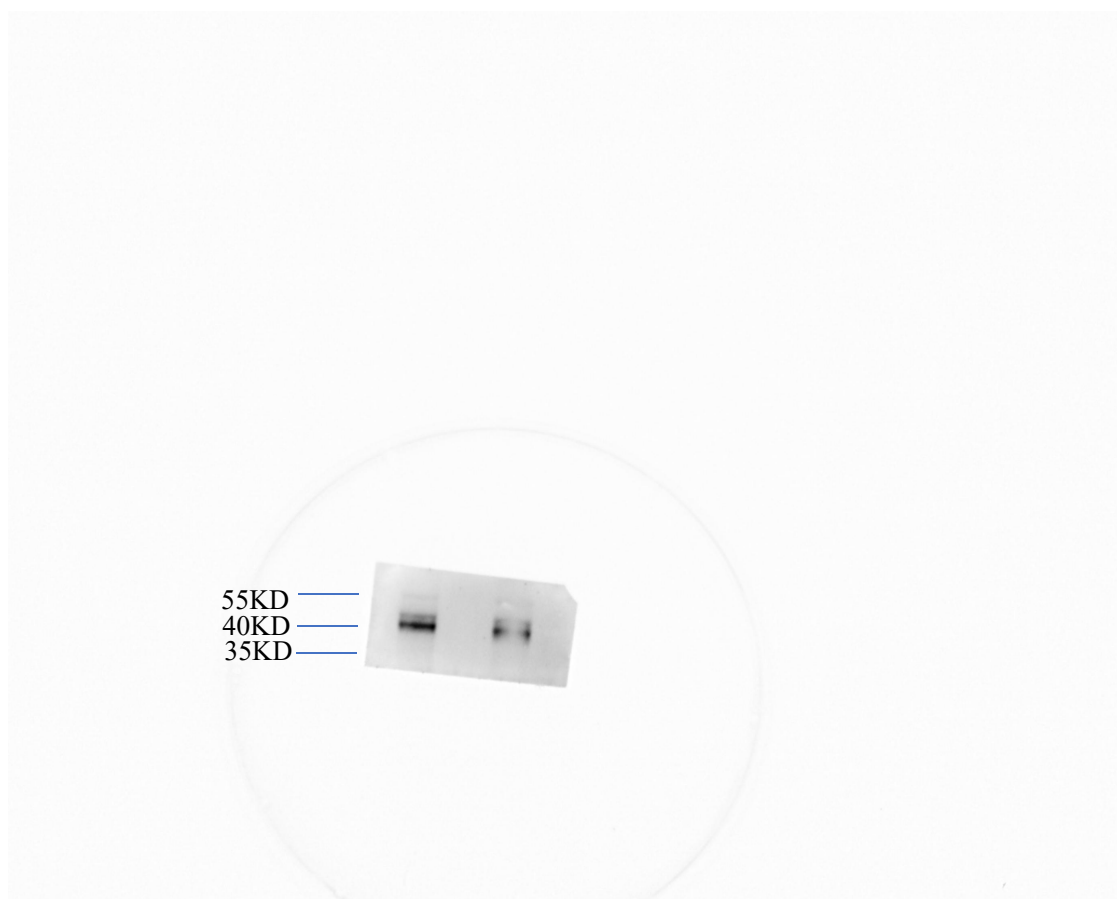
FigureS3A Huh-7 IP-CALD1 CALD1



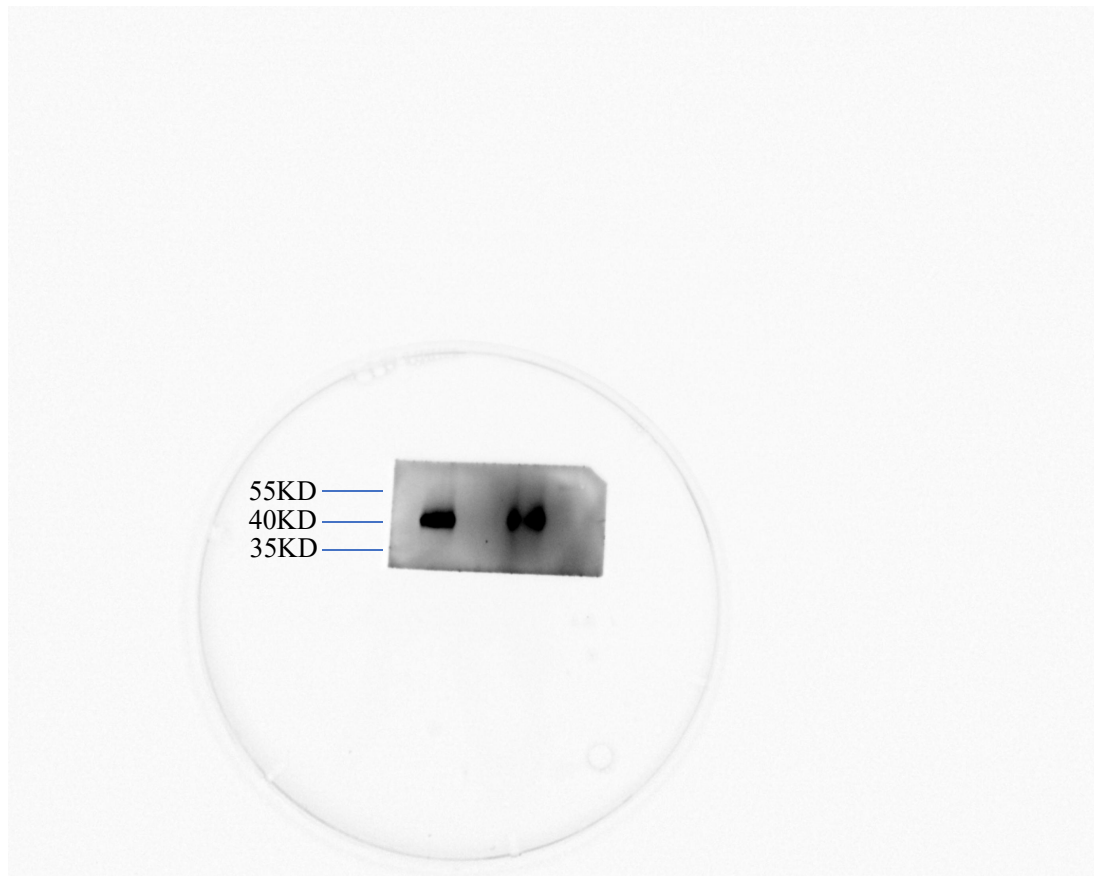
FigureS3A Huh-7 IP-ERK1/2 CALD1



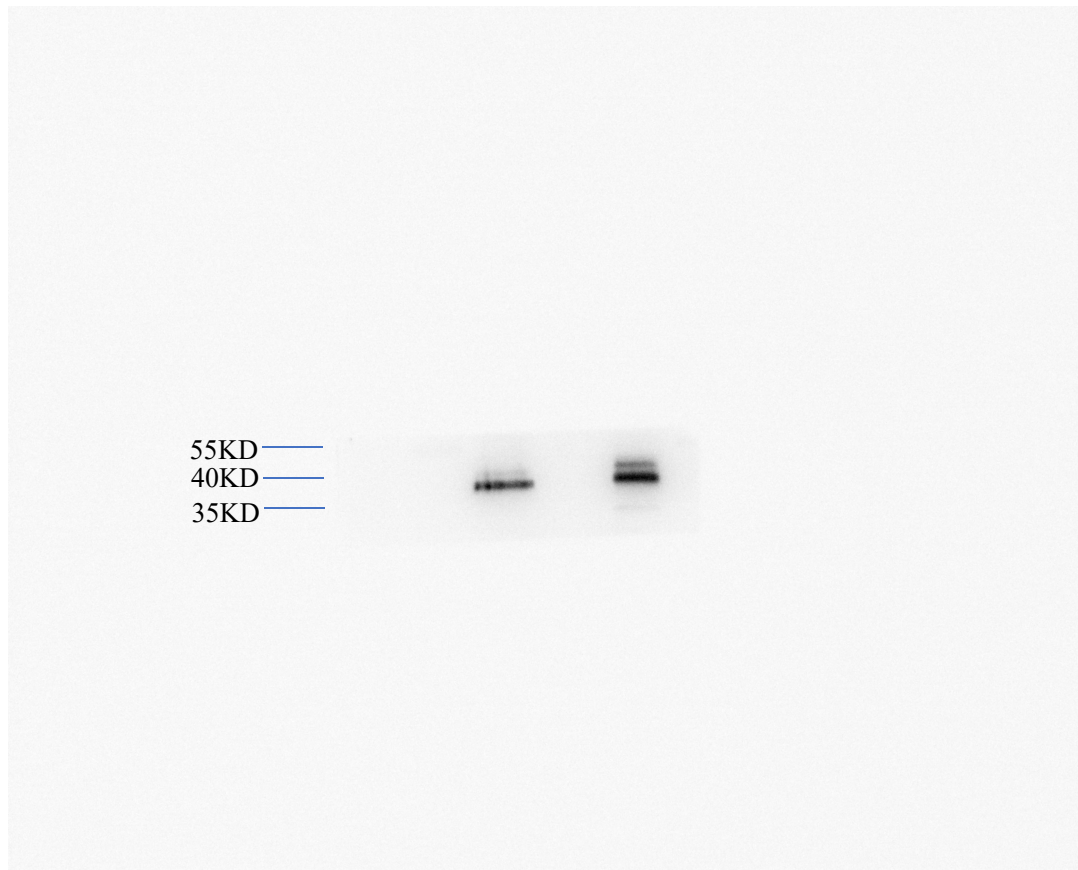
FigureS3A Huh-7 IP-AHSA1 ERK1/2



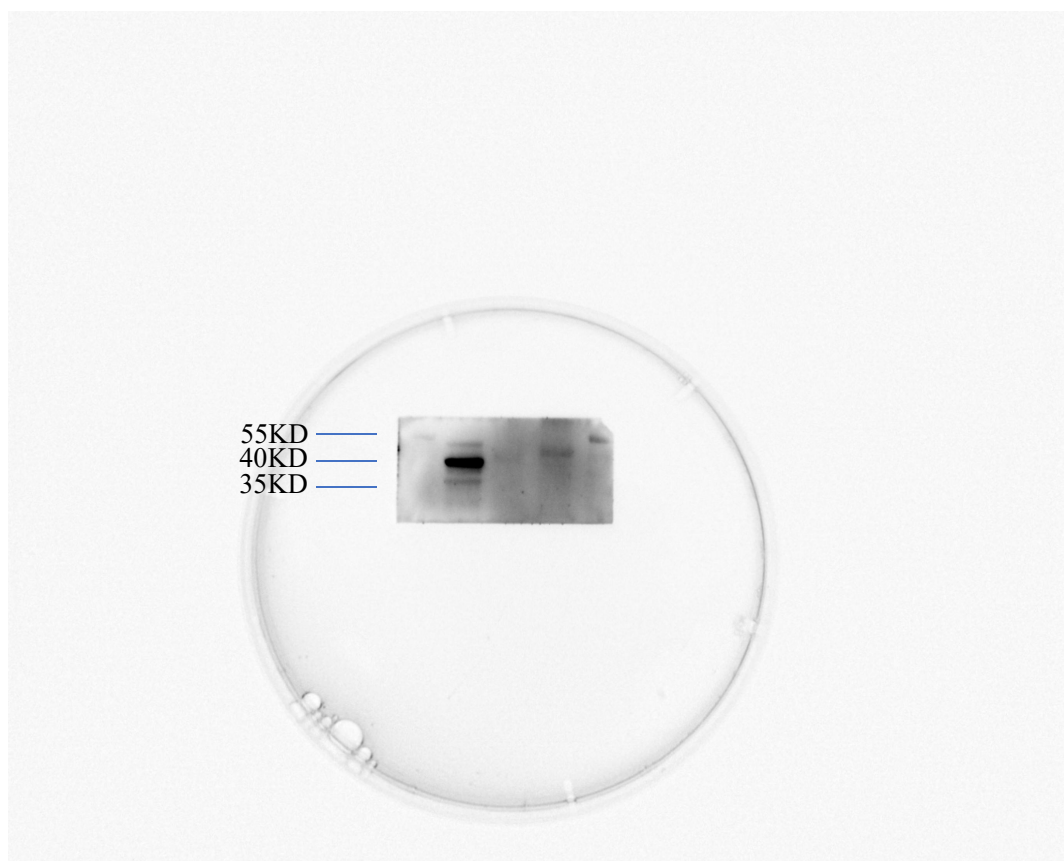
FigureS3A Huh-7 IP-CALD1 ERK1/2



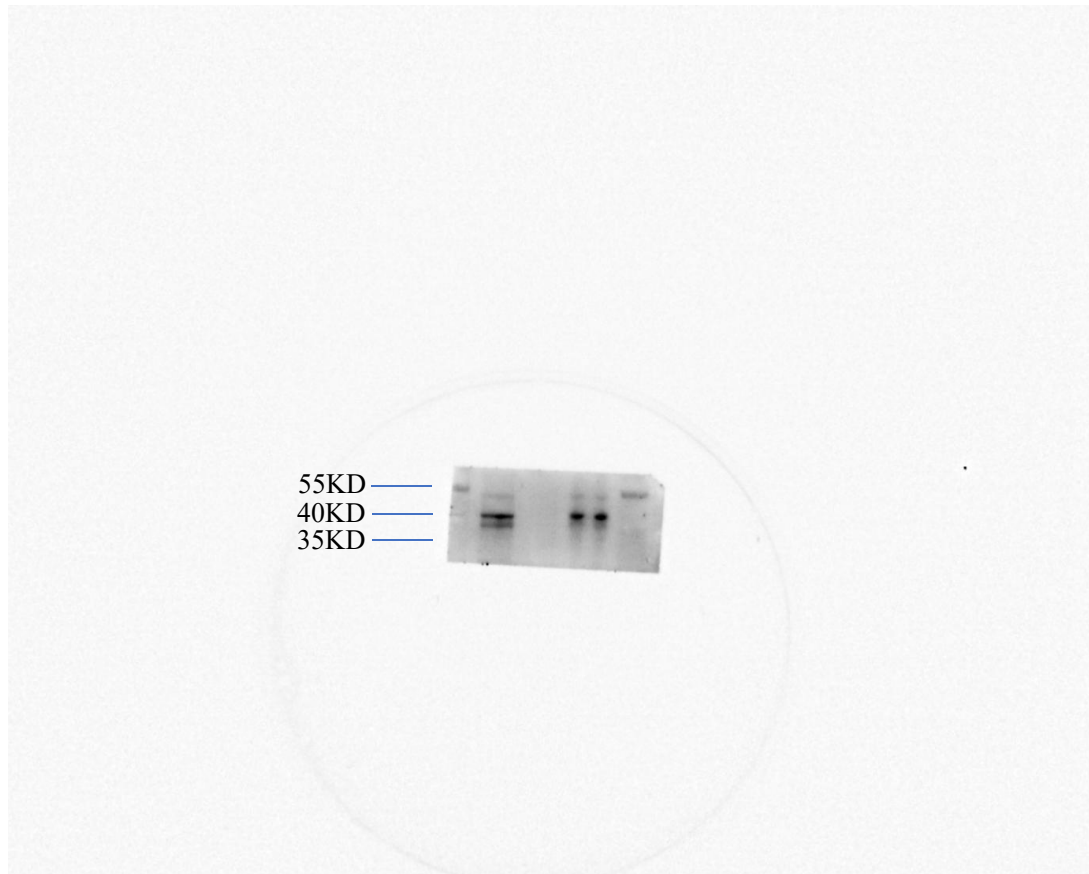
FigureS3A Huh-7 IP-ERK1/2 ERK1/2



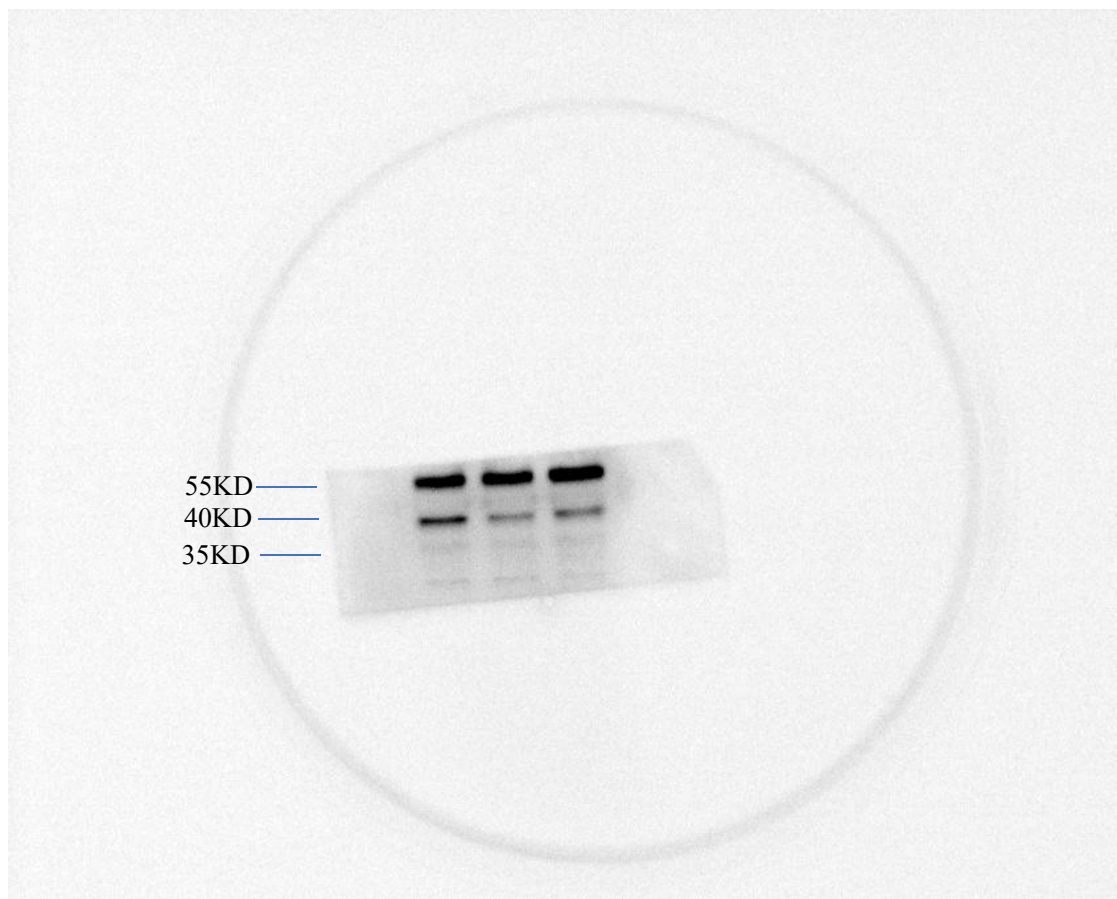
FigureS3A Huh-7 IP-AHSA1 AHSA1



FigureS3A Huh-7 IP-CALD1 AHSA1

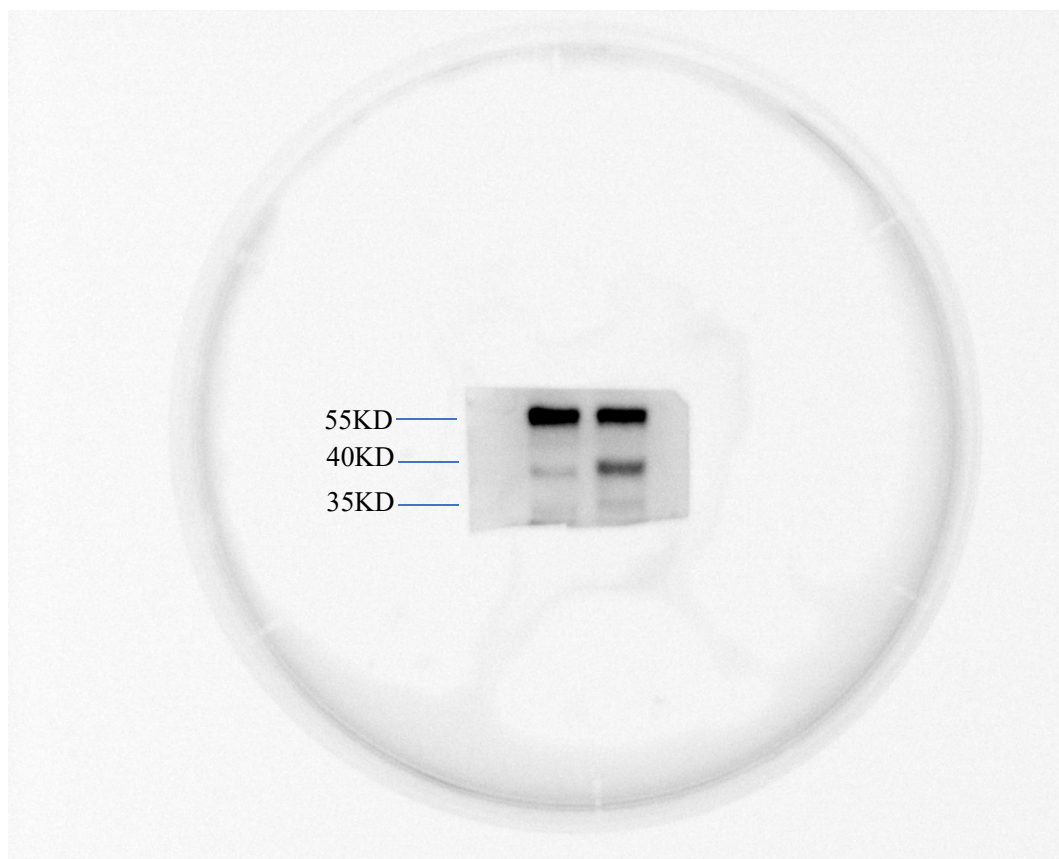


FigureS3A Huh-7 IP-ERK1/2 AHSA1



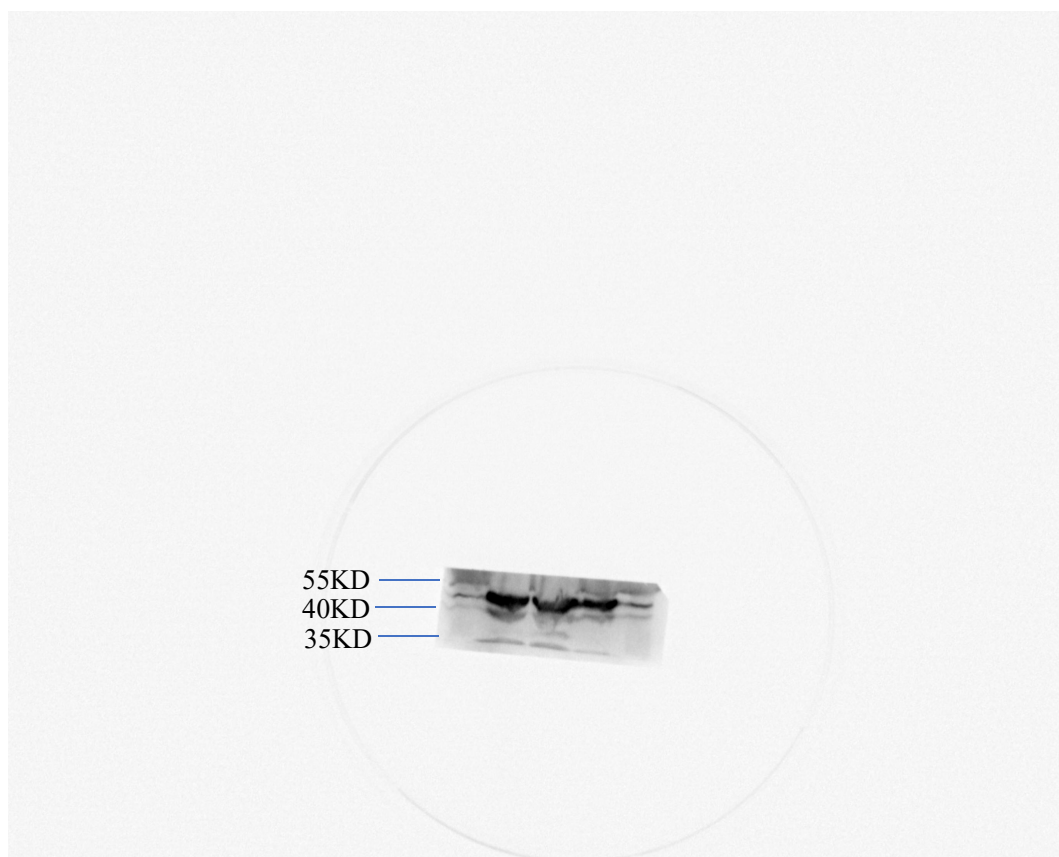
FigureS3C HCCLM3 β -tubulin

FigureS3C HCCLM3 AHSA1

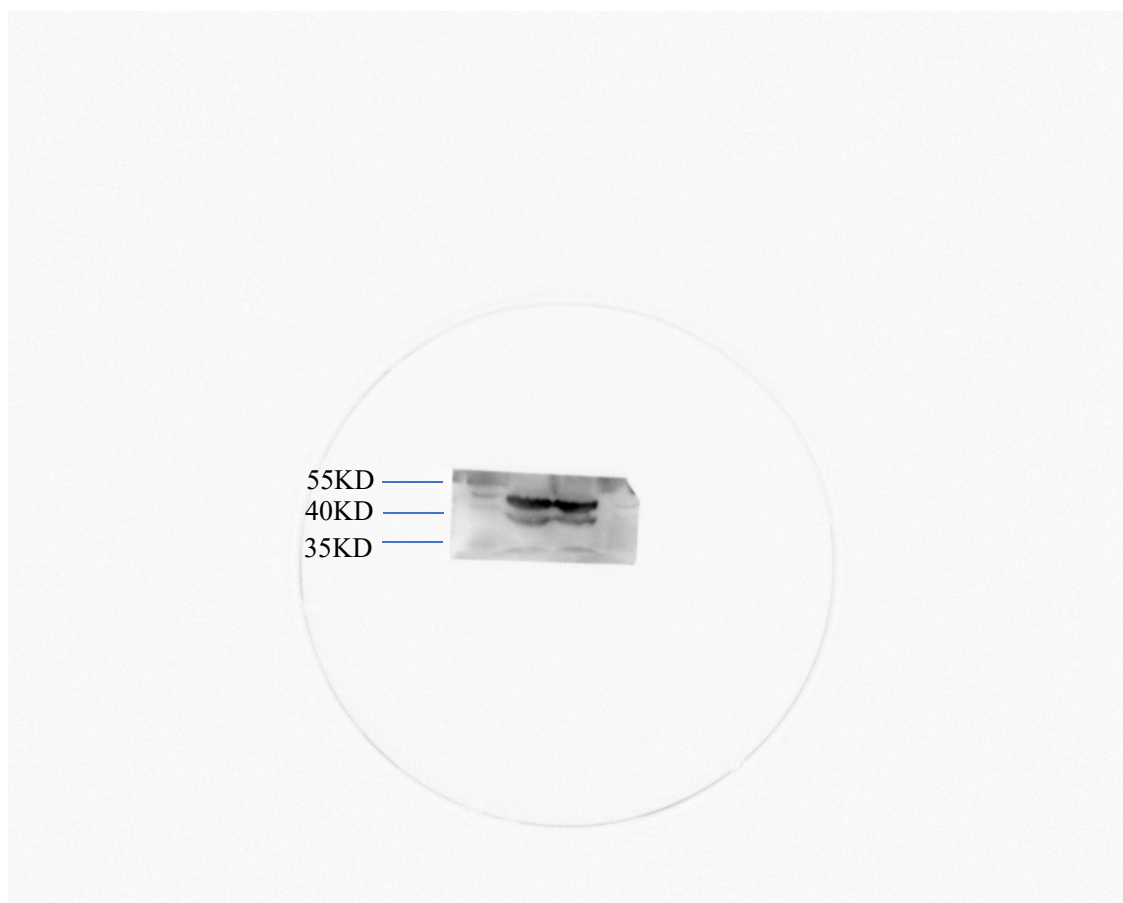


FigureS3C Hep3B β -tubulin

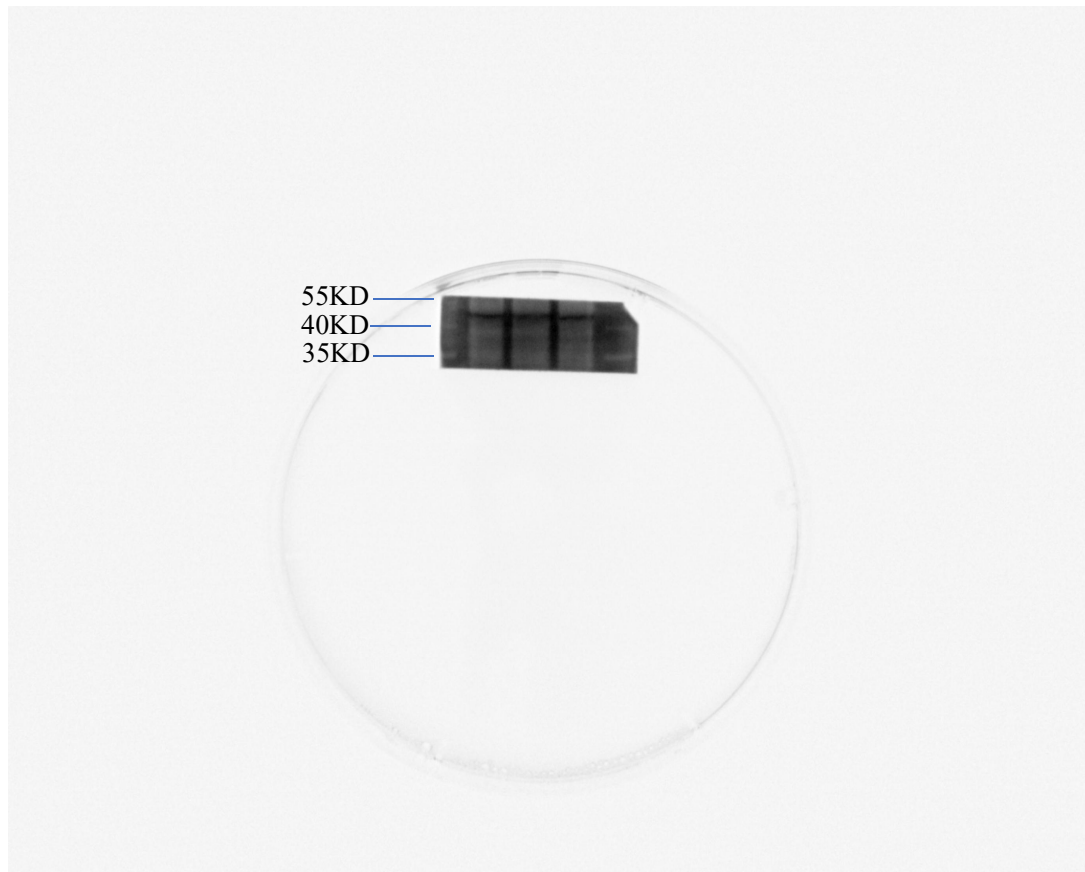
FigureS3C Hep3B AHSA1



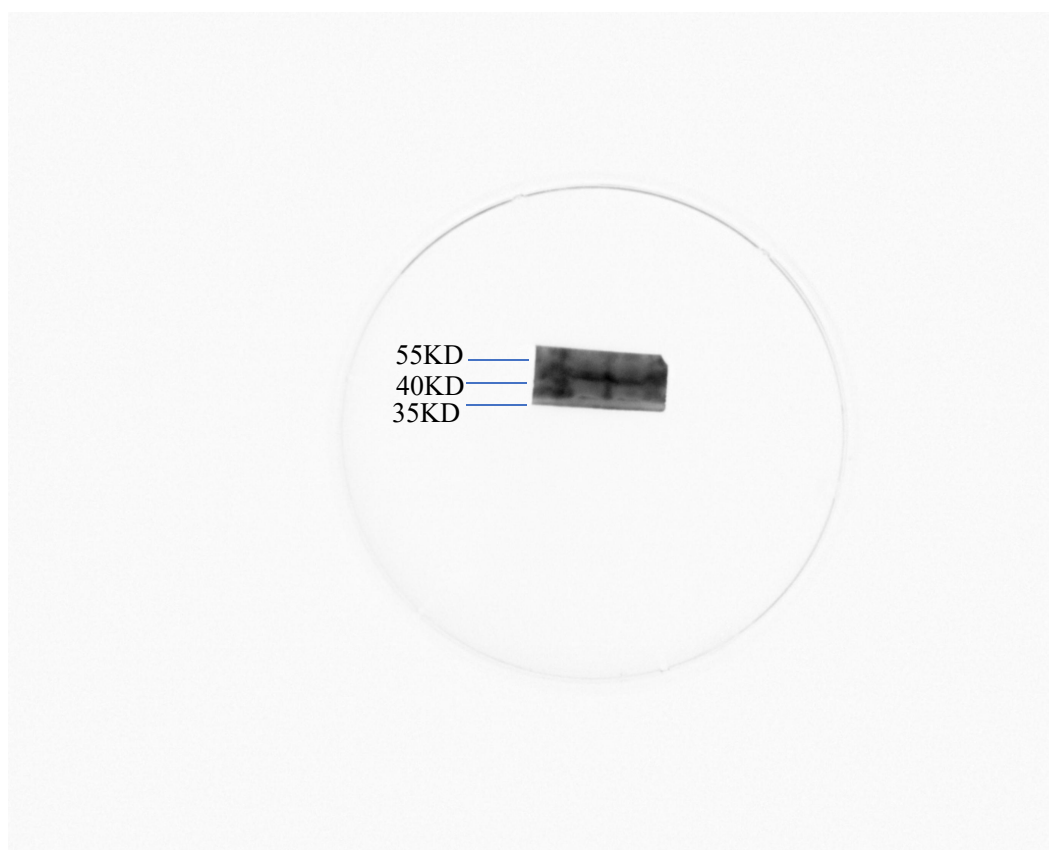
FigureS3C HCCLM3 MEK



FigureS3C Hep3B MEK



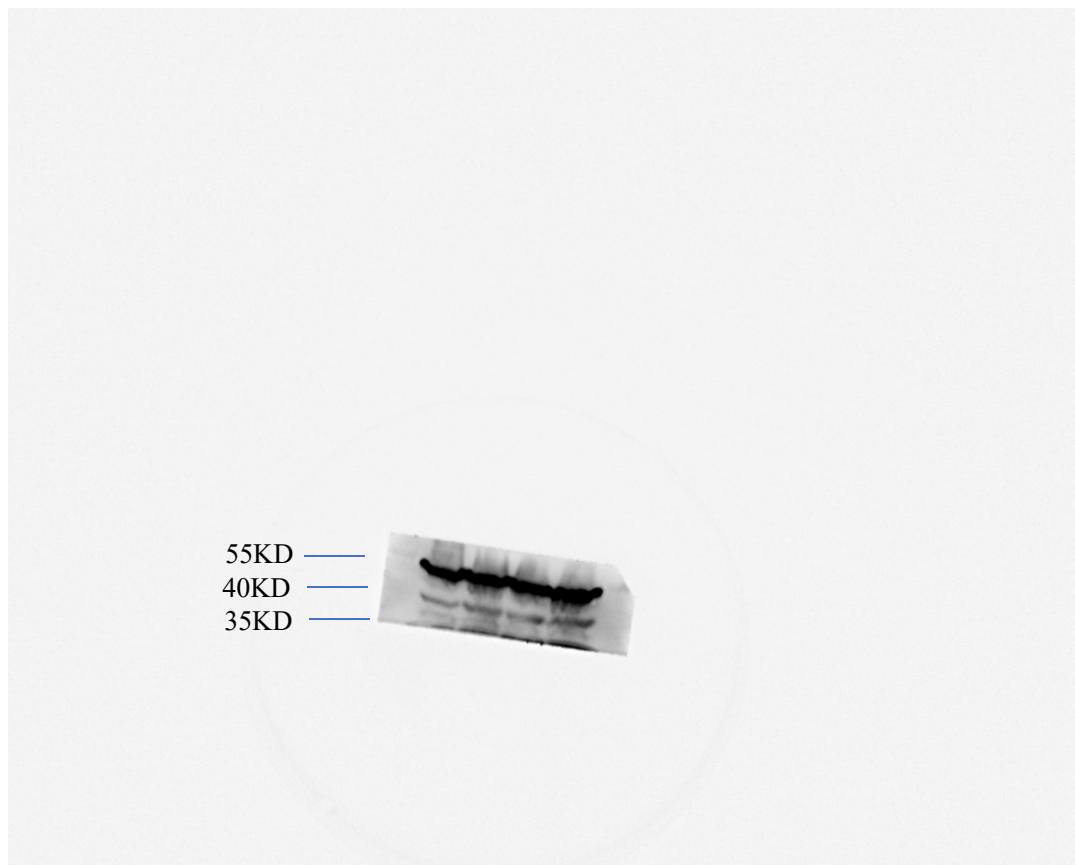
FigureS3C HCCLM3 MEK(phosphoSer217/221)



FigureS3C Hep3B MEK(phosphoSer217/221)



FigureS3D Hep3B HSP90

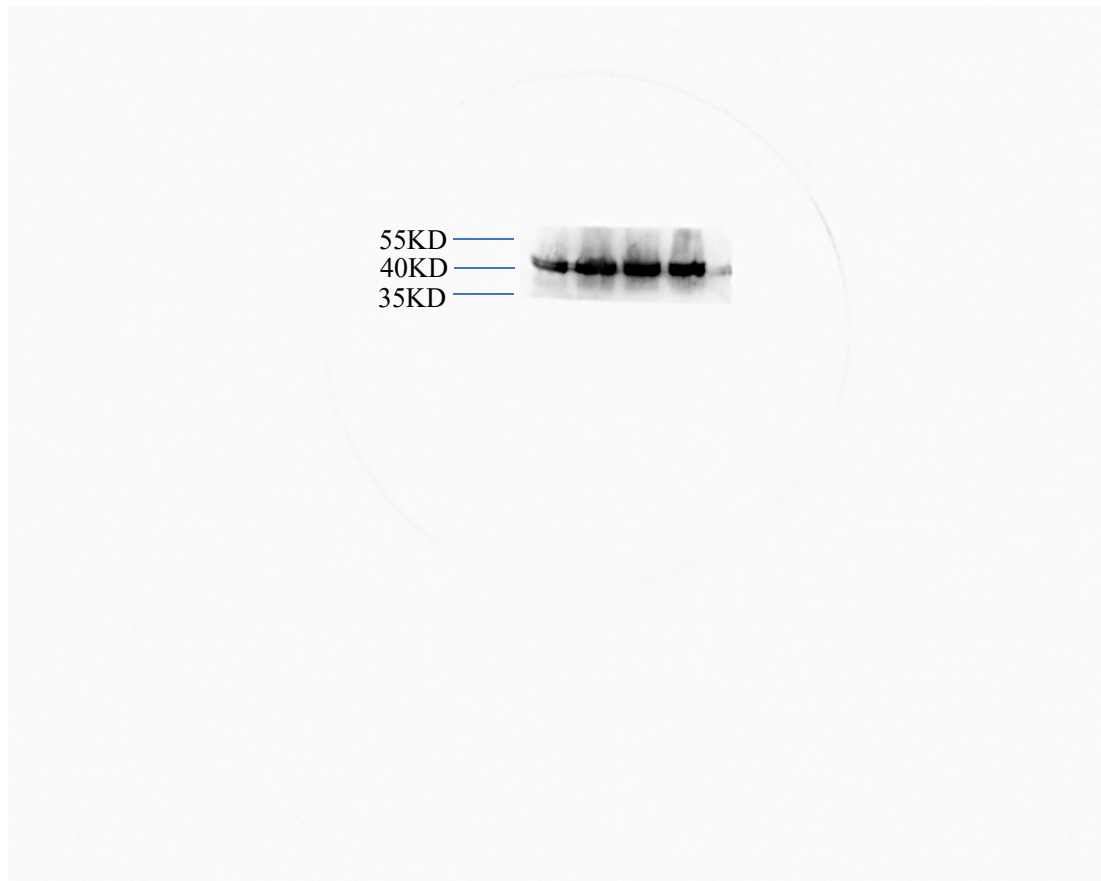


FigureS3D Hep3B β -tubulin

FigureS3D Hep3B AHSA1



FigureS3D Hep3B ERK1/2(phosphoThr202/Tyr204)



FigureS3D Hep3B ERK1/2