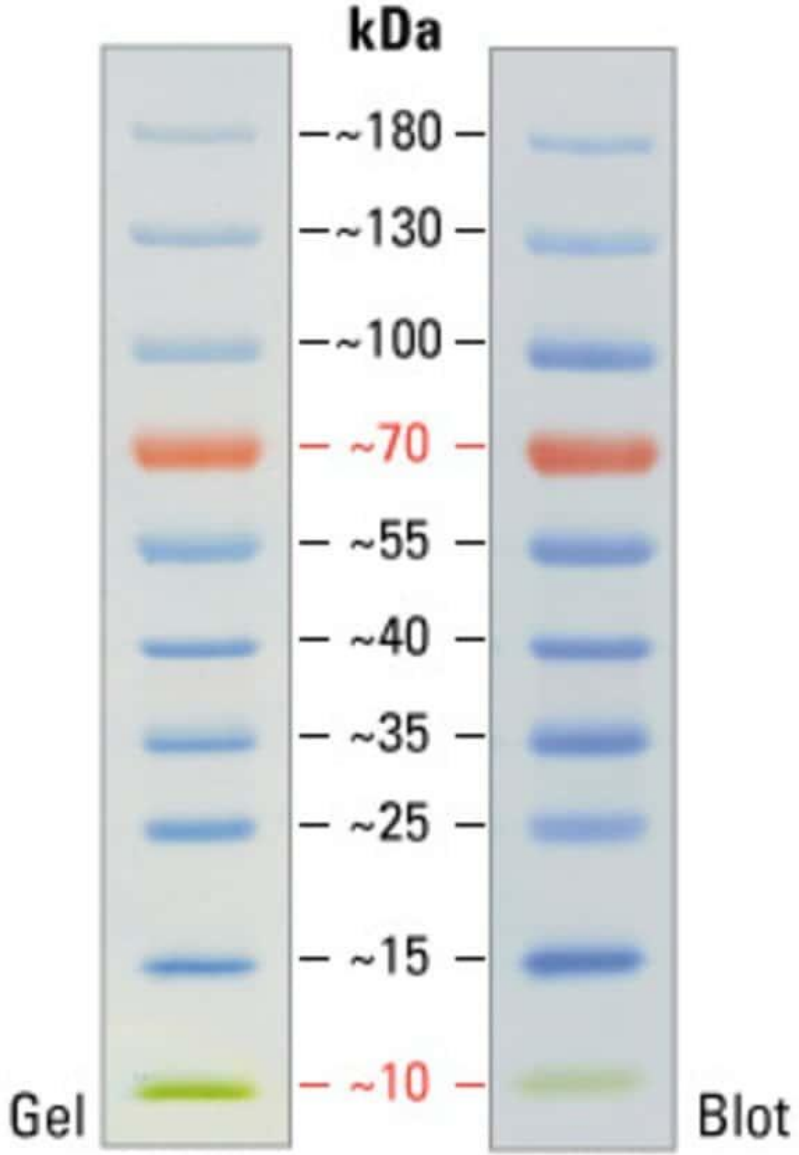
Supplementary Information (SI) for RSC Advances.

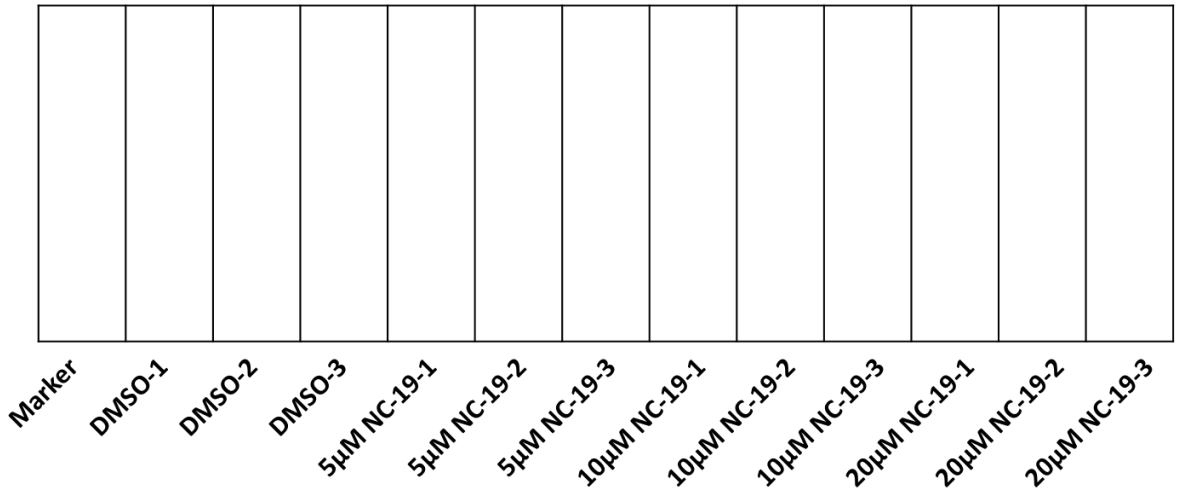
Marker (Thermo 26616)



Gel lane sequence

After treatment with DMSO and **NC-19**, the HT-29 cells were lysis with RIPA. Three triplicated DMSO samples were named as DMSO-1, DMSO-2, DMSO-3. **NC-19** treated samples were named as 5μM **NC-19**-1, 5μM **NC-19**-2, 5μM **NC-19**-3, 10μM **NC-19**-1, 10μM **NC-19**-2, 10μM **NC-19**-3, 20μM **NC-19**-1, 20μM **NC-19**-2 and 20μM **NC-19**-3.

All gels share the same lane sequence, as shown below

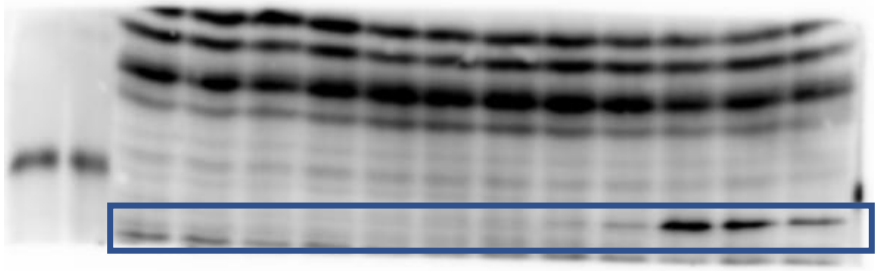


After membrane transferred, we cut the gel into two parts by molecular weight, the first half part(**IOP Gel**) was incubated with IOP (Interest Of Protein) primary antibody, the second half part(**ICP Gel**) was incubated with ICP(Internal Control Protein) primary antibody (GAPDH, Tubulin, Calnexin). Then two parts of gel were incubated with secondary antibody after wash, then analysis by ChemiDocTM XRS+(Bio-Rad).

Figure-2F Cleaved-Caspase-3 (35kda)

Cleaved-Caspase-3 blot image presented in Figure 2F of manuscript

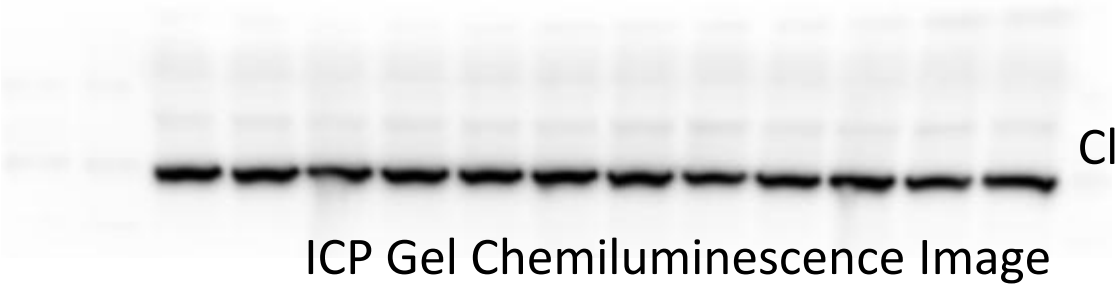
25kda Marker



IOP Gel Chemiluminescence Image

Figure 2F Cleaved-Casepase-3-Calnexin(90kda)

70kda Marker ←



Cleaved-Caspase-3 control blot image

ICP Gel Chemiluminescence Image

Figure 2F Cleaved-Caspase-3 merged gel Colorimetric image

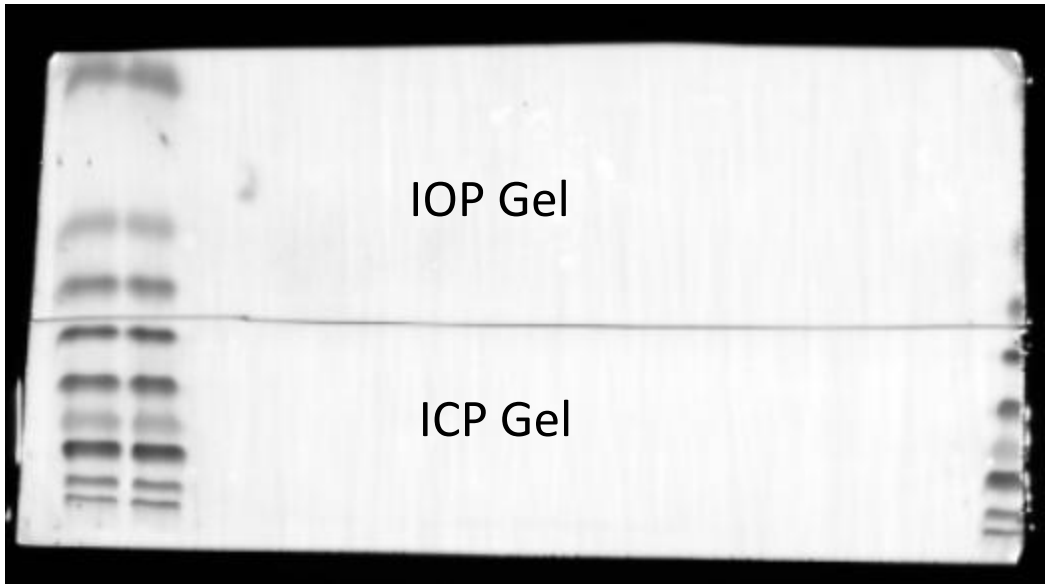
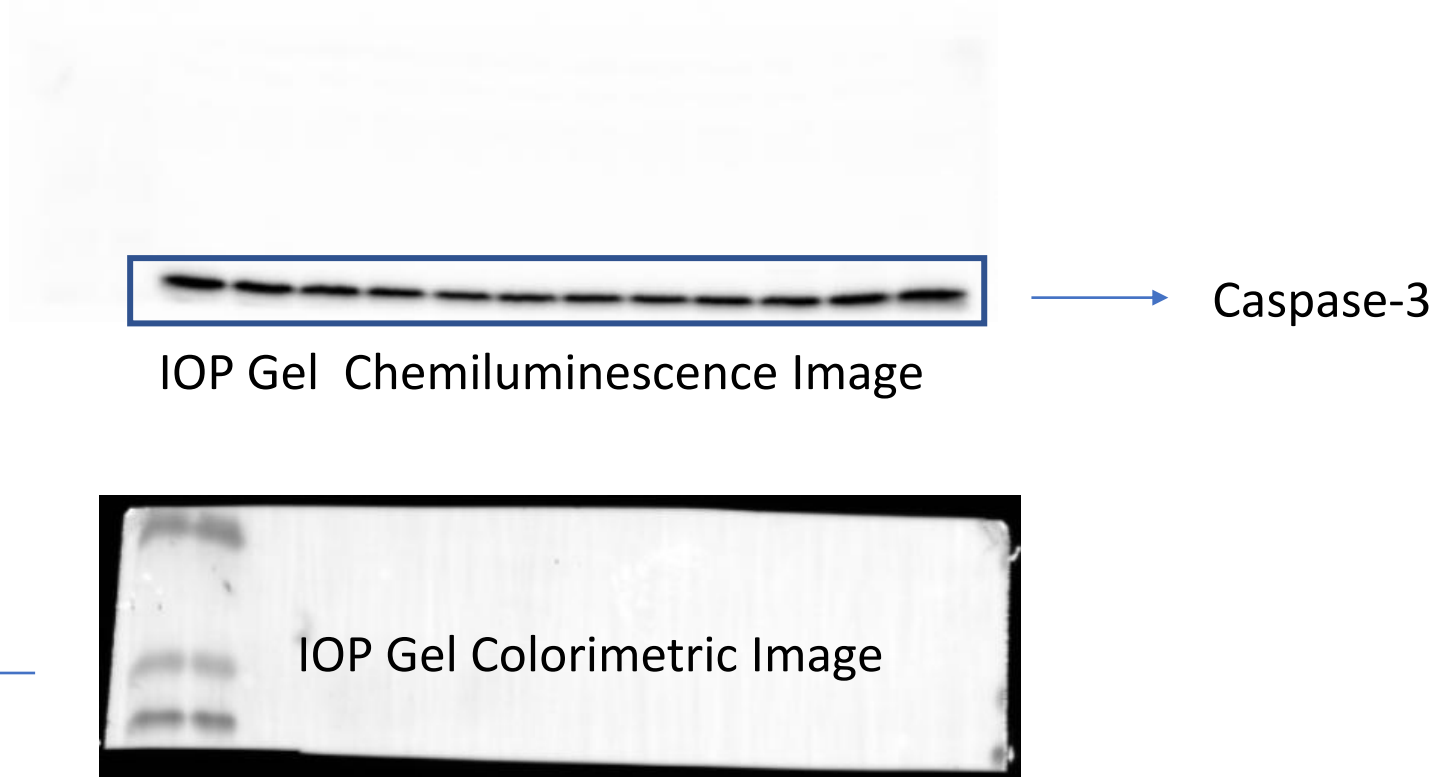


Figure 2F Caspase-3 (35kda)

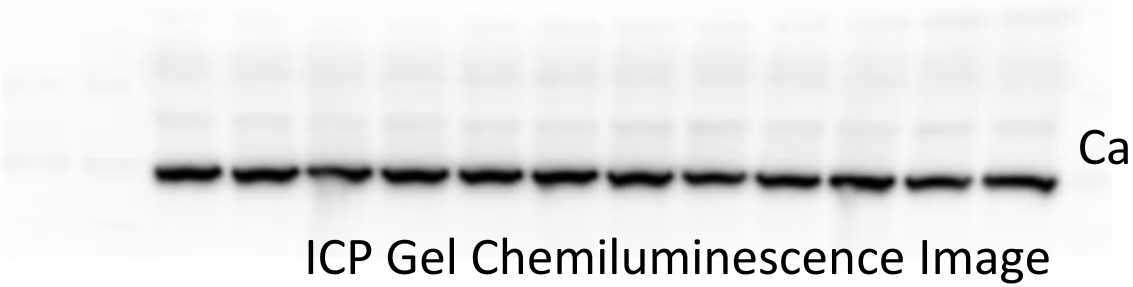
Caspase-3 blot image presented in Figure 2F of manuscript



After developing the bands for Cleaved Caspase-3, the gel was stripped using Fast Western Blot Antibody Stripping Buffer and subsequently reprobed for Caspase-3.

Figure 2F Caspase-3-Calnexin (90kda)

70kda Marker ←



Caspase-3 control blot image

ICP Gel Chemiluminescence Image

Figure 2F Caspase-3 merged gel Colorimetric image

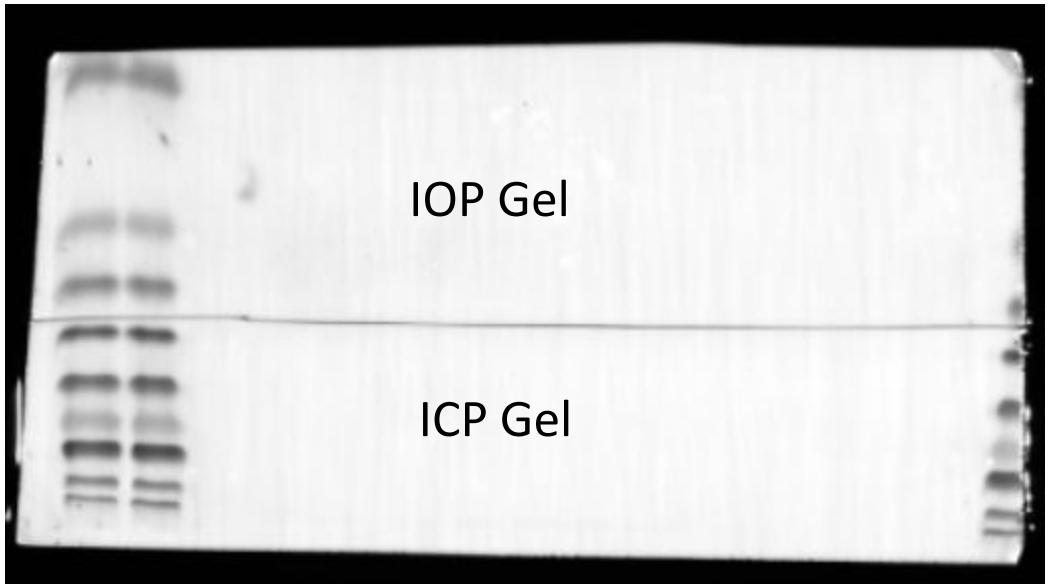
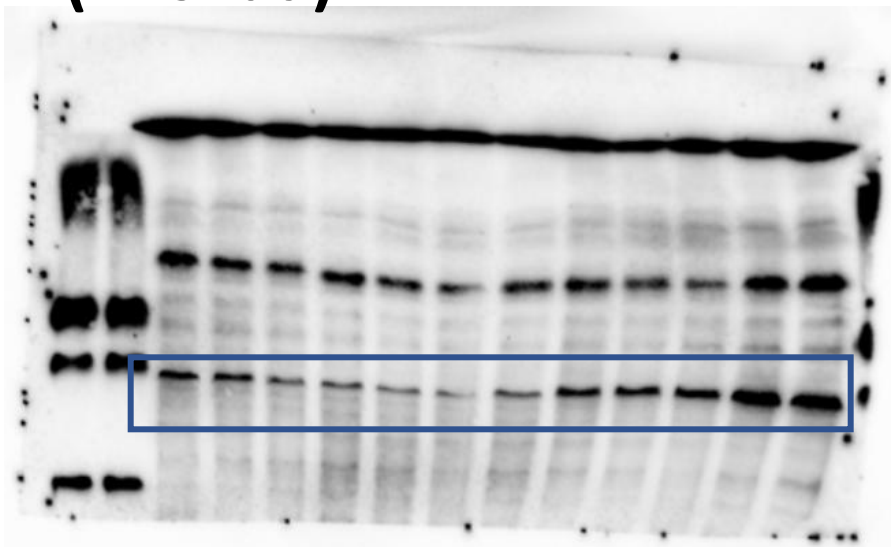


Figure 2F Cleaved-PARP1 (116kda)



Cleaved-PARP1 blot image presented in Figure 2F of manuscript

100kda Marker

Cleaved-PARP1

IOP Gel Chemiluminescence Image

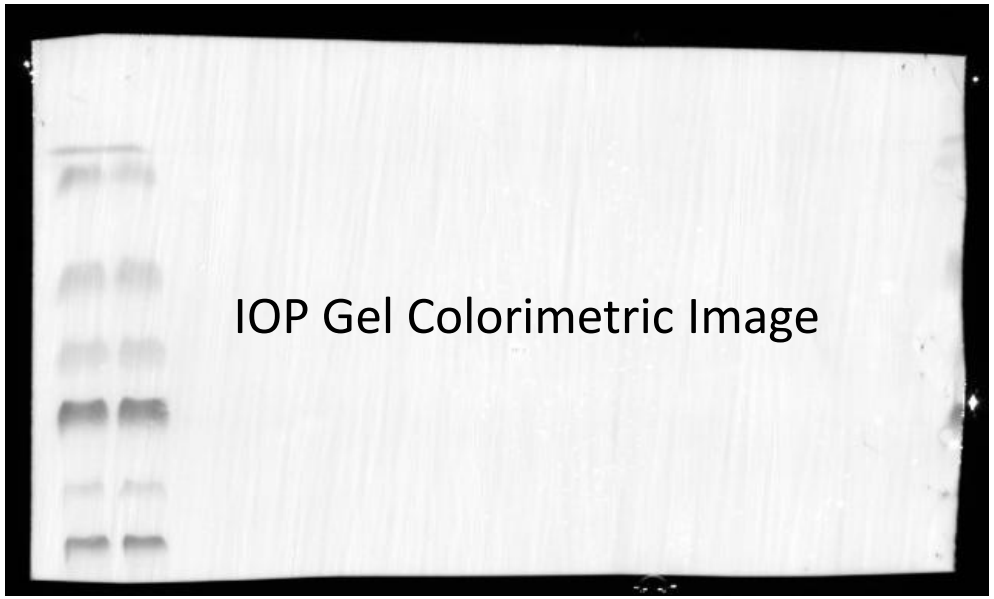
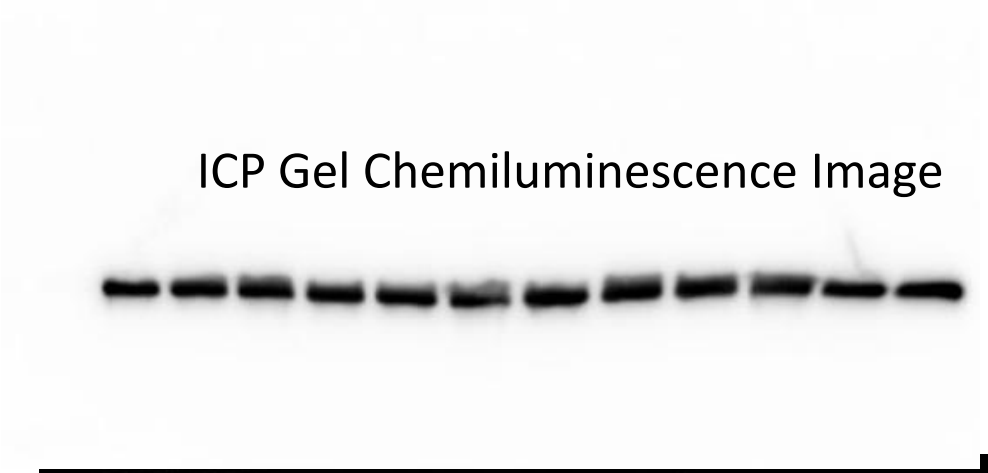
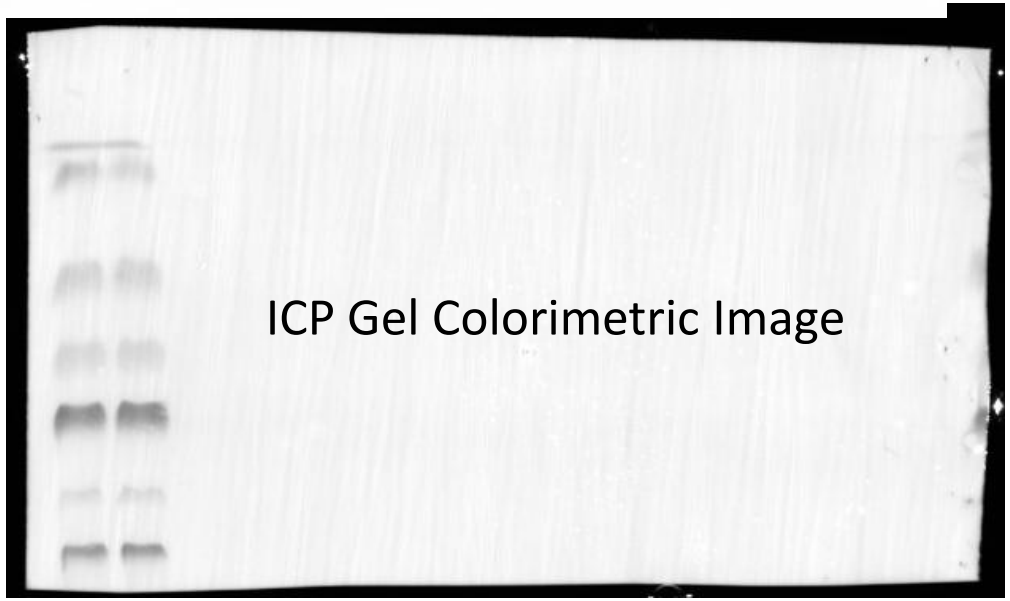


Figure 2F Cleaved-PARP1- Calnexin (90kda)

ICP Gel Chemiluminescence Image



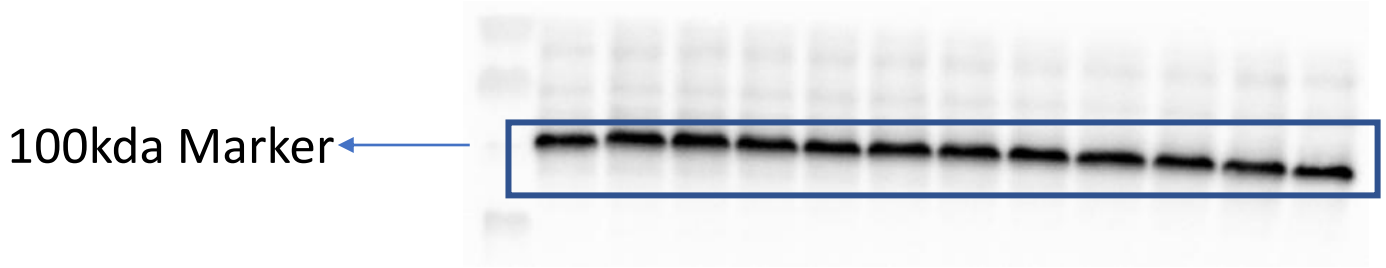
Cleaved-PARP1 control blot image



After developing the bands for Cleaved-PARP1, the gel was stripped using Fast Western Blot Antibody Stripping Buffer and subsequently reprobed for Calnexin.

Figure 2F PARP1 (116kda)

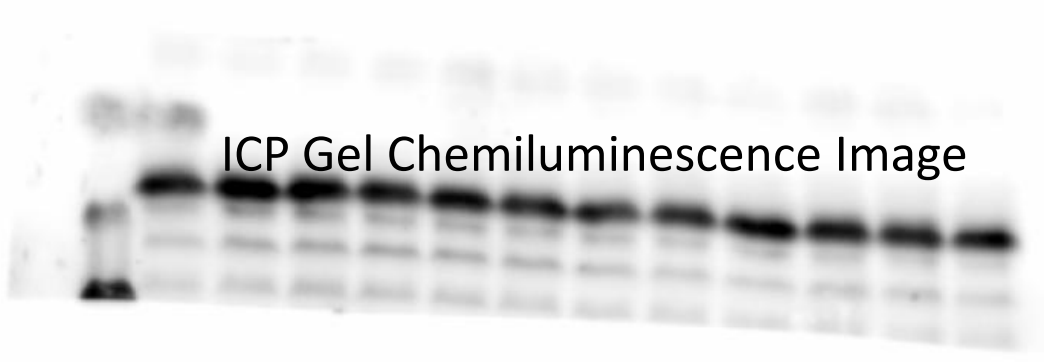
PARP blot image presented in Figure 2F of manuscript



IOP Gel Chemiluminescence Image

Figure 2F PARP1-Tubulin (55kda)

55kda Marker



ICP Gel Chemiluminescence Image

PARP control blot image

ICP Gel Colorimetric Image

Figure 2F PARP1 merged gel Colorimetric image

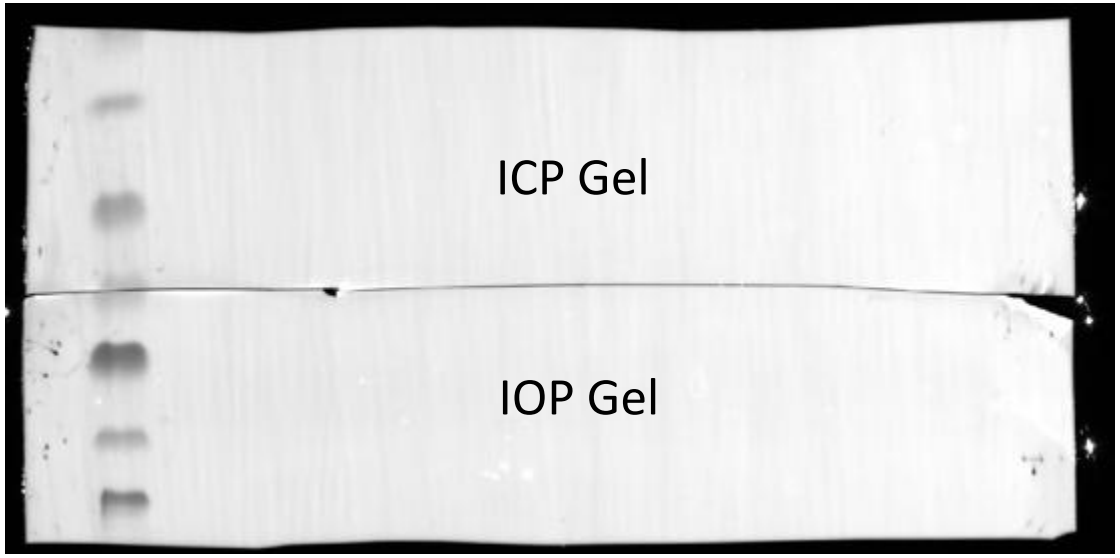
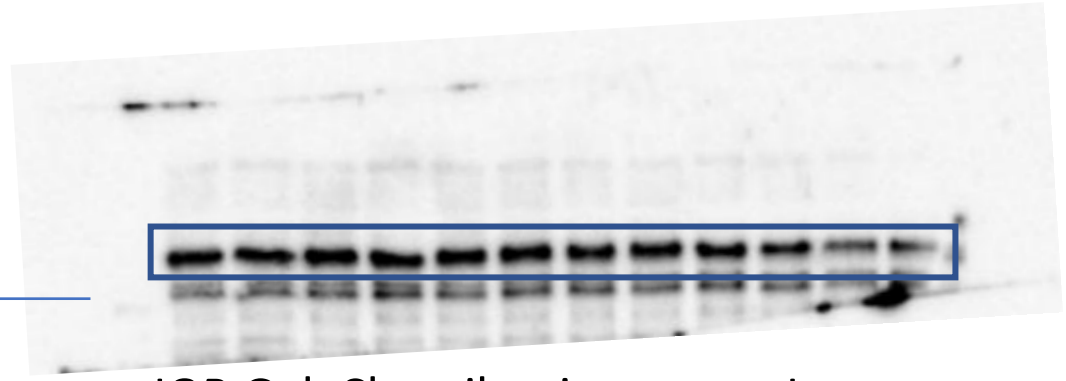


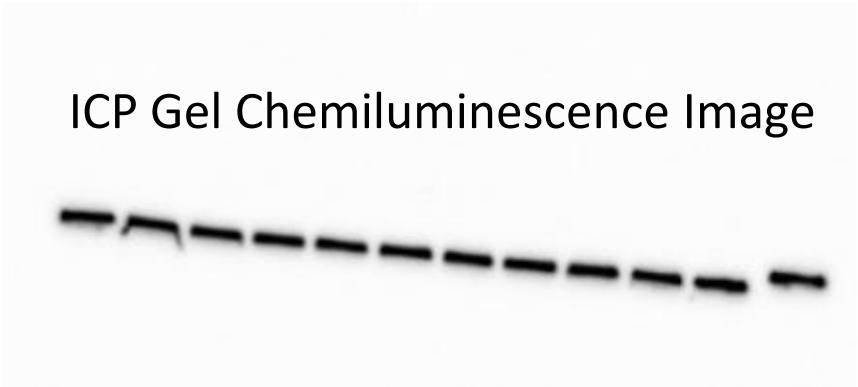
Figure 3C CDK2 (33kda)

CDK2 blot image presented in Figure 3C of manuscript



IOP Gel Chemiluminescence Image

Figure 3C CDK2-Calnexin (90kda)



CDK2 control blot image

Figure 3C CDK2 merged gel Colorimetric image

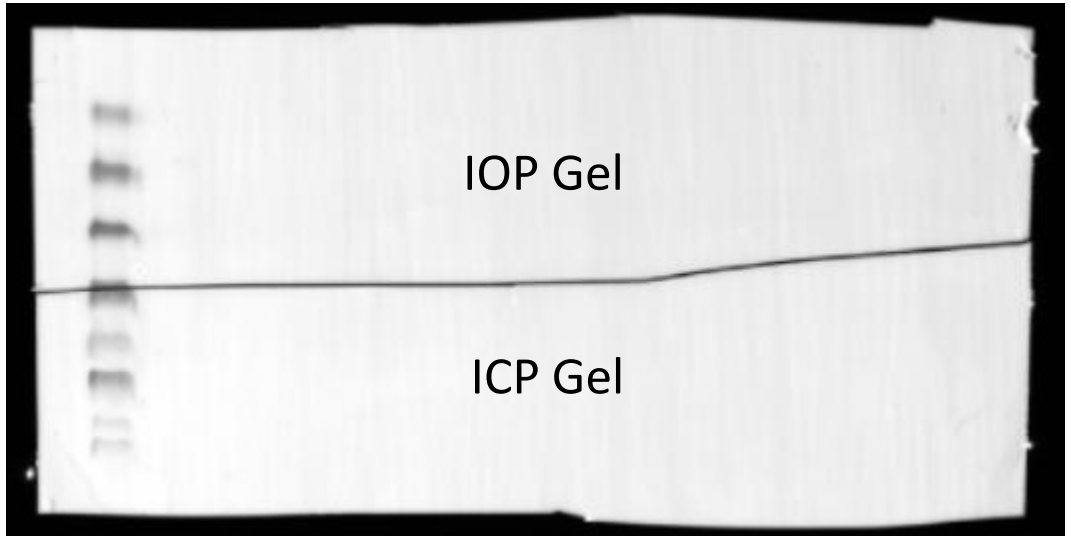
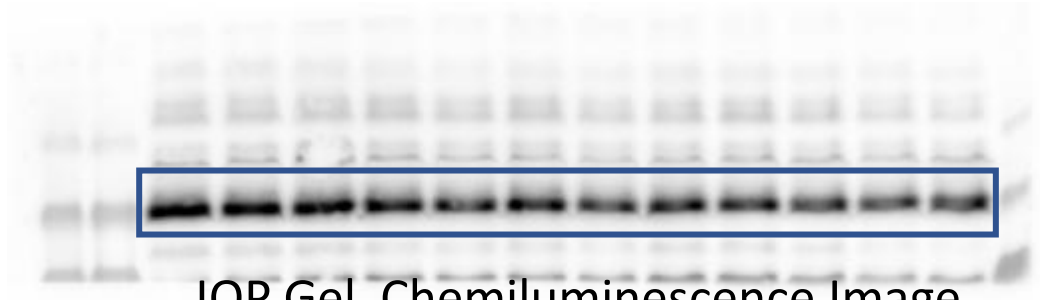


Figure 3C Cyclin E (47kda)

Cyclin E blot image presented in Figure 3C of manuscript

55kda Marker



IOP Gel Chemiluminescence Image

Figure 3C Cyclin E-Calnexin (90kda)

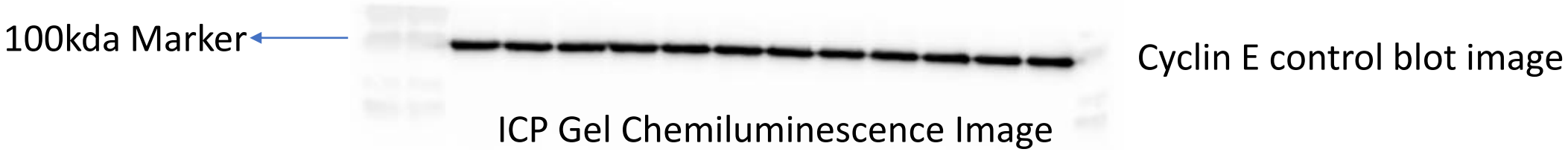


Figure 3C Cyclin E merged gel Colorimetric image

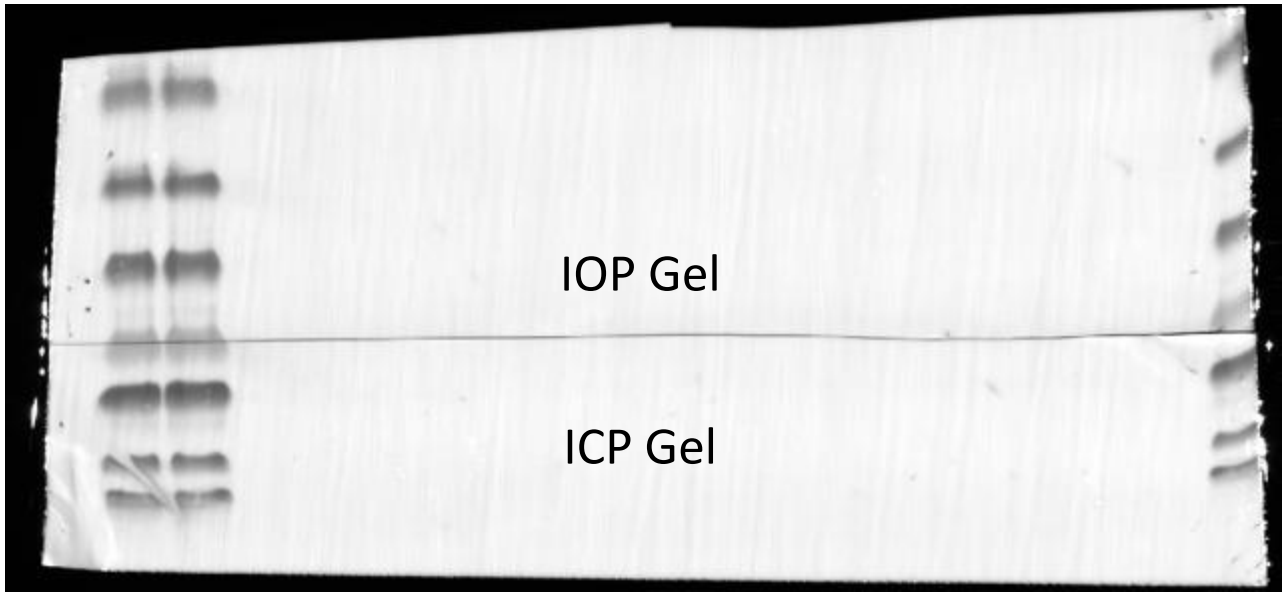


Figure 4C MMP9 (92kda)

MMP9 blot image presented in Figure 4C of manuscript

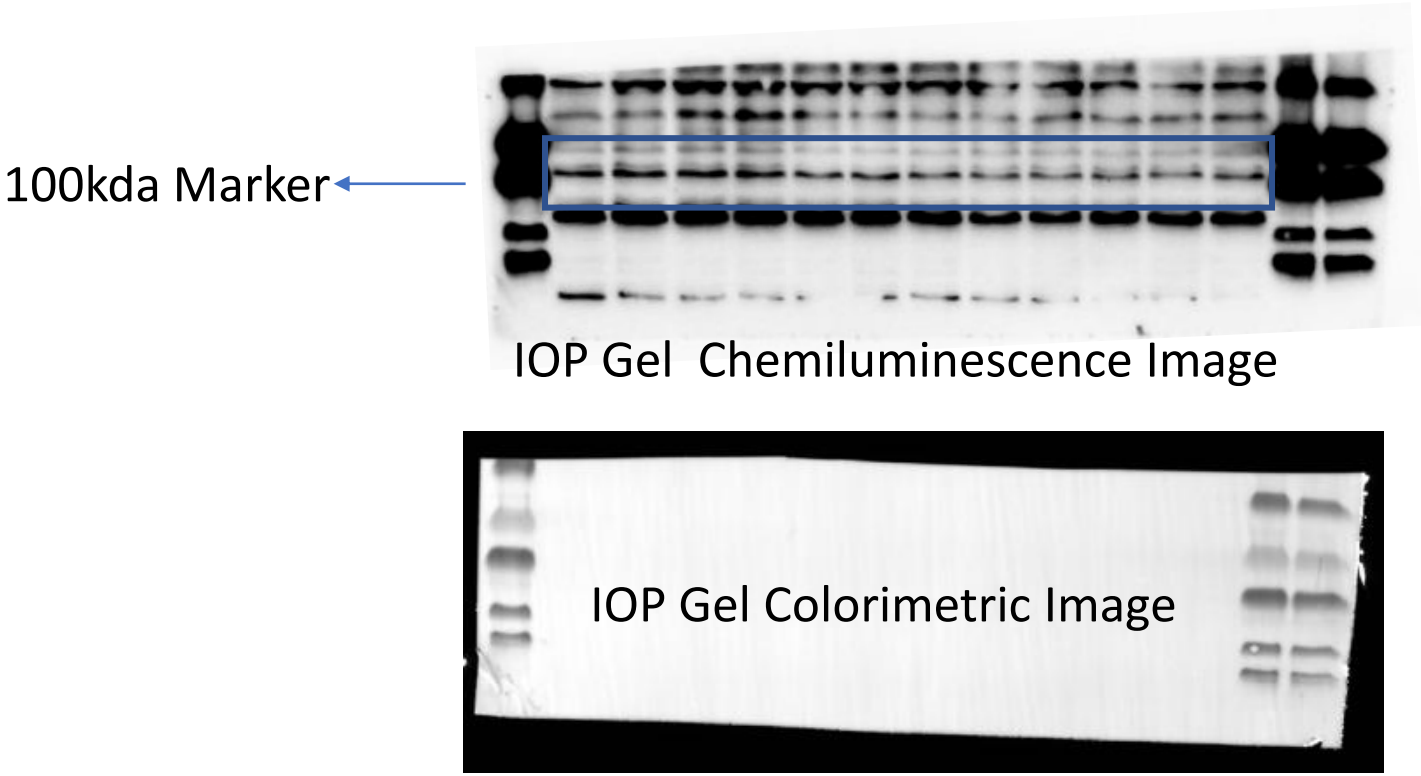
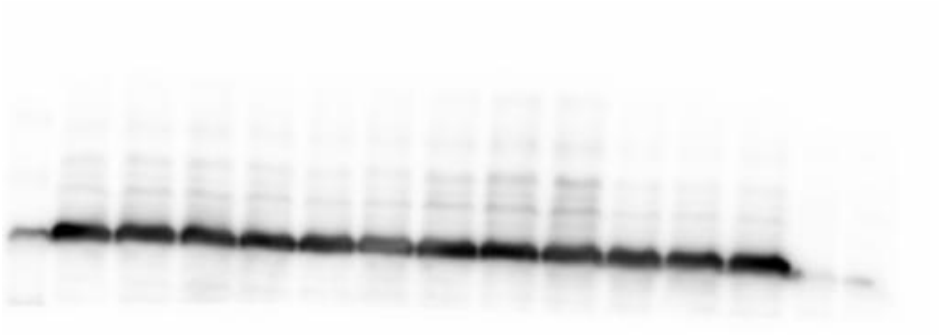


Figure 4C MMP9-GAPDH (90kda)

45kda Marker



MMP9 control blot image

ICP Gel Chemiluminescence Image

Figure 4C MMP9 merged gel Colorimetric image