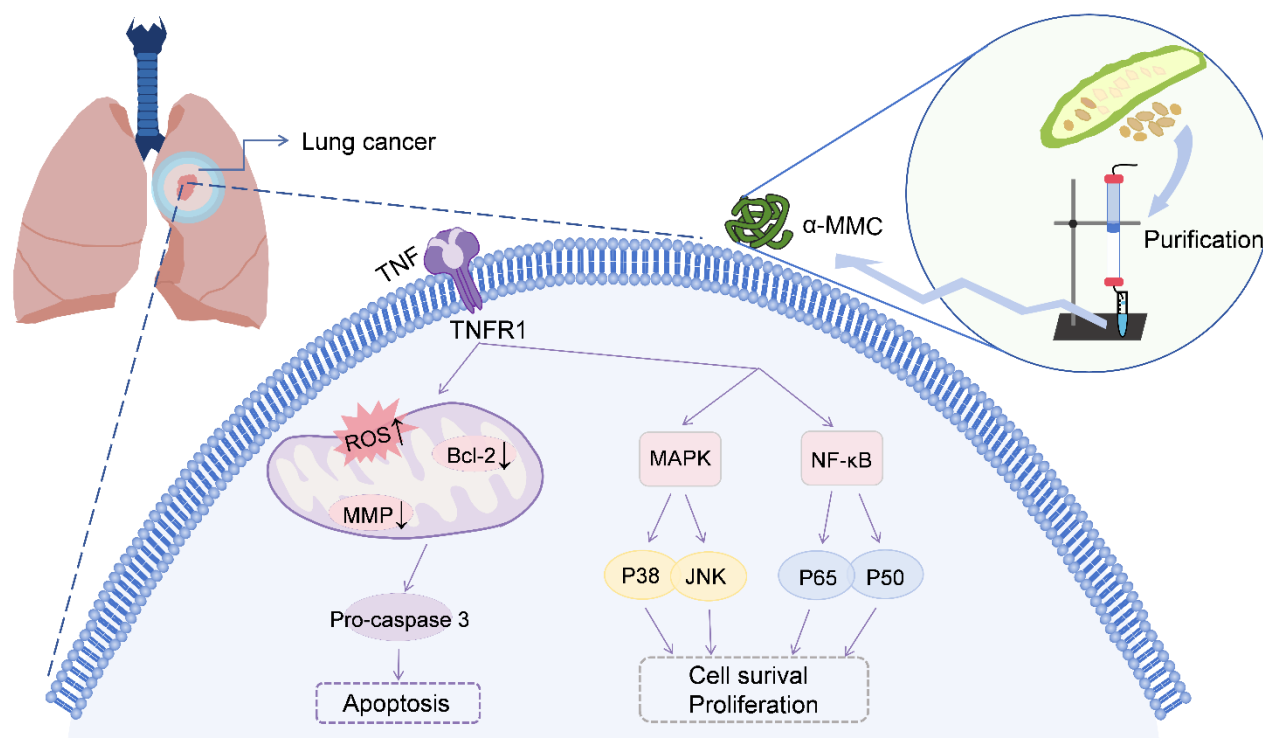
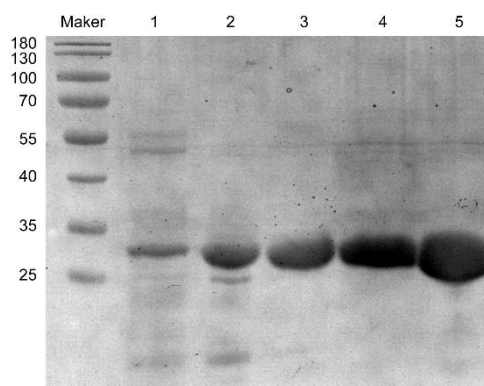


## Supplementary Material

### 1 Graphical Abstract



### 2 Supplementary Figures and Tables



**Figure S1. The profile of different purification stages by SDS-PAGE.** Lane 1: Crude extracts; Lane 2: 30~60% A.S. precipitation; Lane 3: SP-Sepharose FF chromatography; Lane 4: Sephacryl S-100 chromatography; Lane 5: SP-Sepharose FF chromatography

**Table S1. Purification of  $\alpha$ -MMC from bitter melon seeds.**

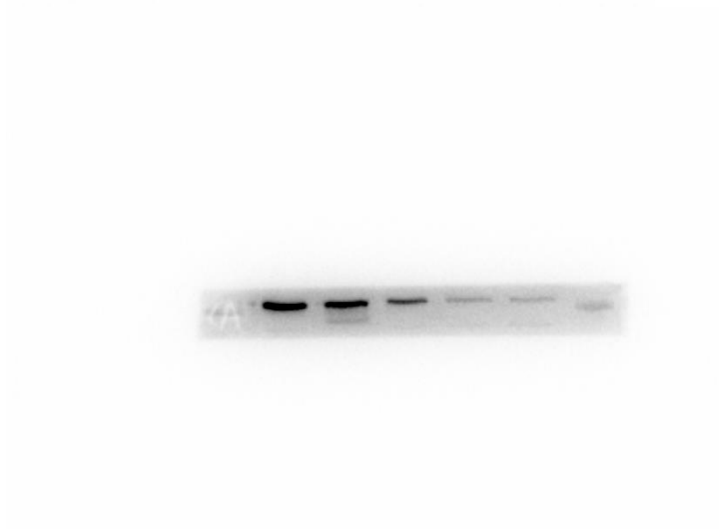
<b>Steps</b>	<b>Total volume (mL)</b>	<b>Protein conc. (mg/mL)</b>	<b>Protein content (mg)</b>	<b>Recovery of Proteins (%)</b>
Crude extracts	375	-	-	-
pH3.6 treatment	375	16.39	6146.25	100
30~60% A.S. precipitation	90	14.39	1295.10	21.07
SP-Sepharose FF chromatography	110	4.02	442.20	7.19
Sephacryl S-100 chromatography	208	0.96	199.68	3.25
SP-Sepharose FF chromatography	9	6.29	56.61	0.92

**Note:** Values reported are an average value of three preparations. The data of Protein content was quantified using the BCA kit.

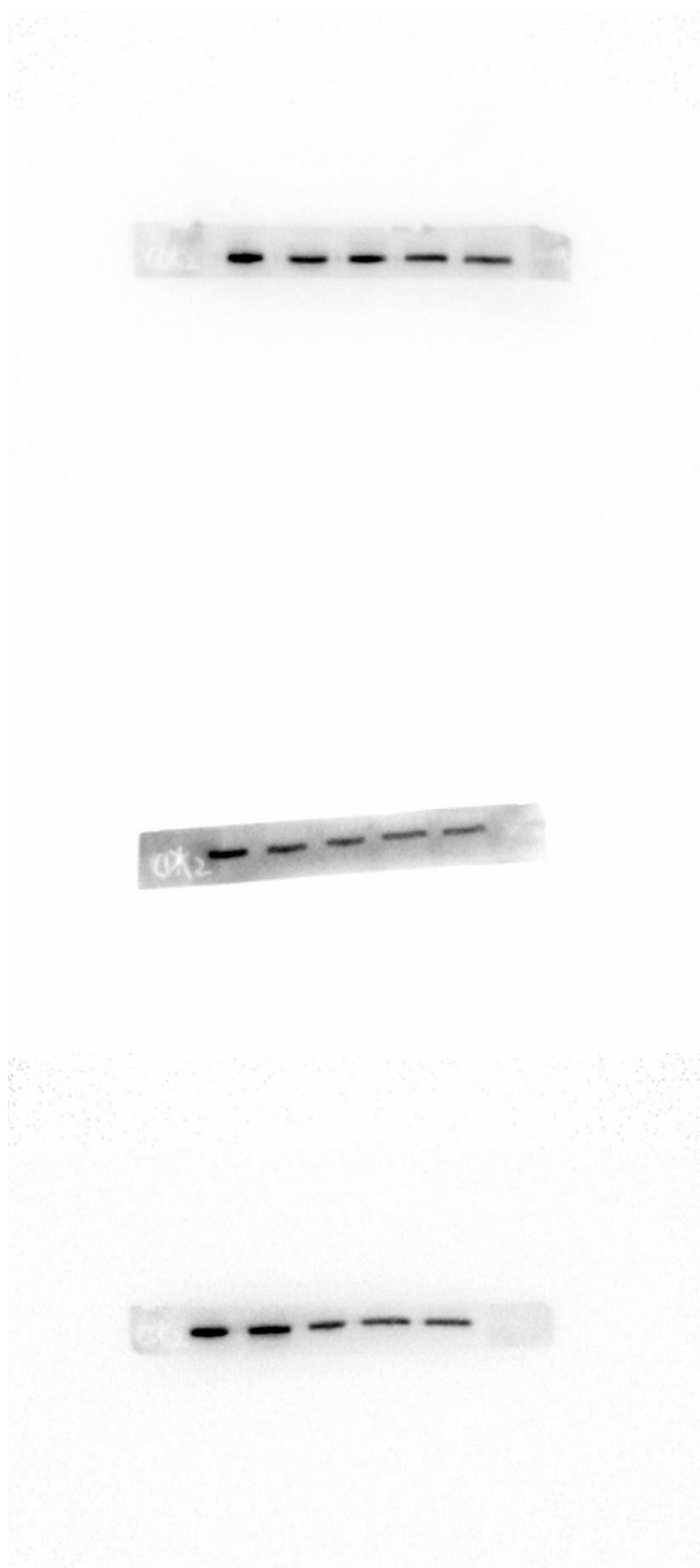
### 3 Raw data from Western Blots

#### 3.1 Uncropped Western Blots of A549 cells about cell cycle regulatory proteins

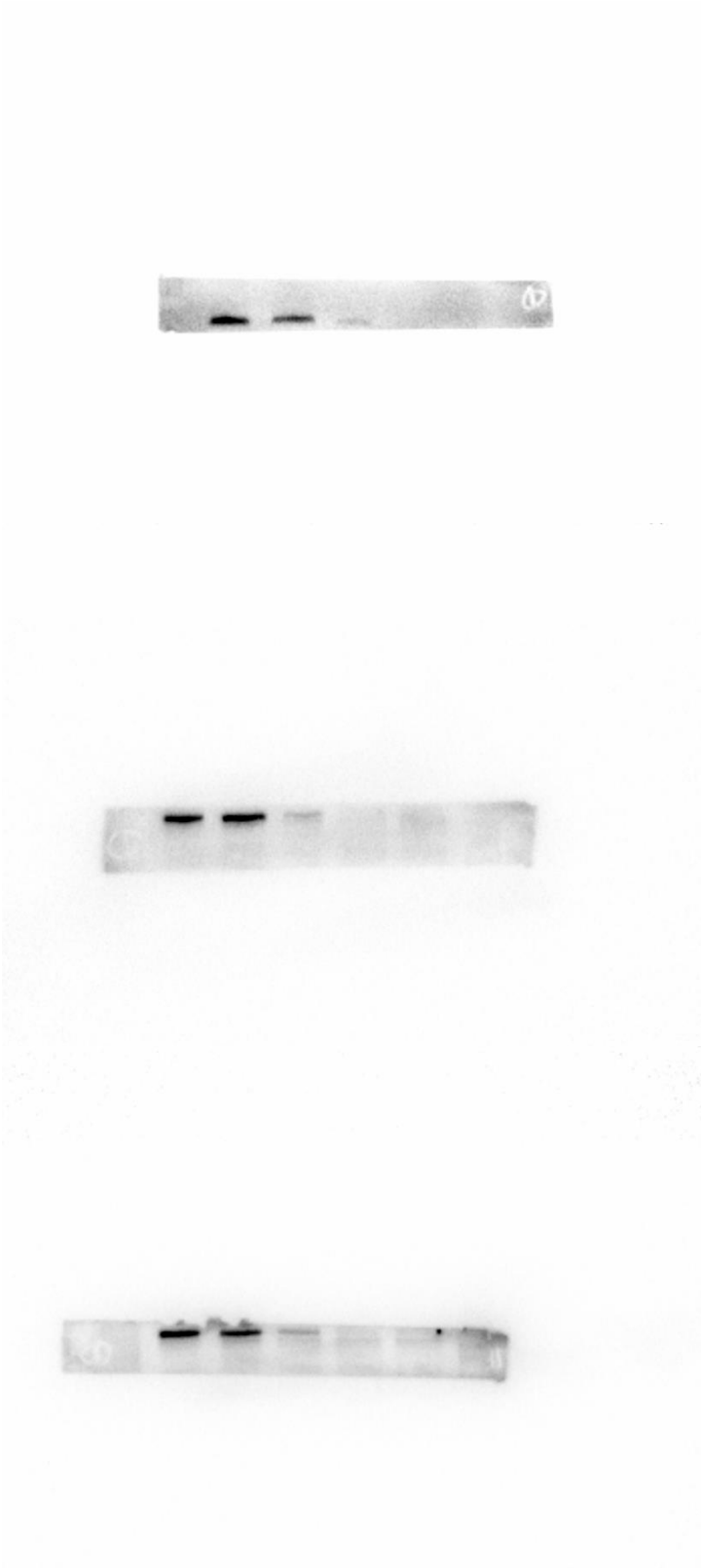
Cyclin A



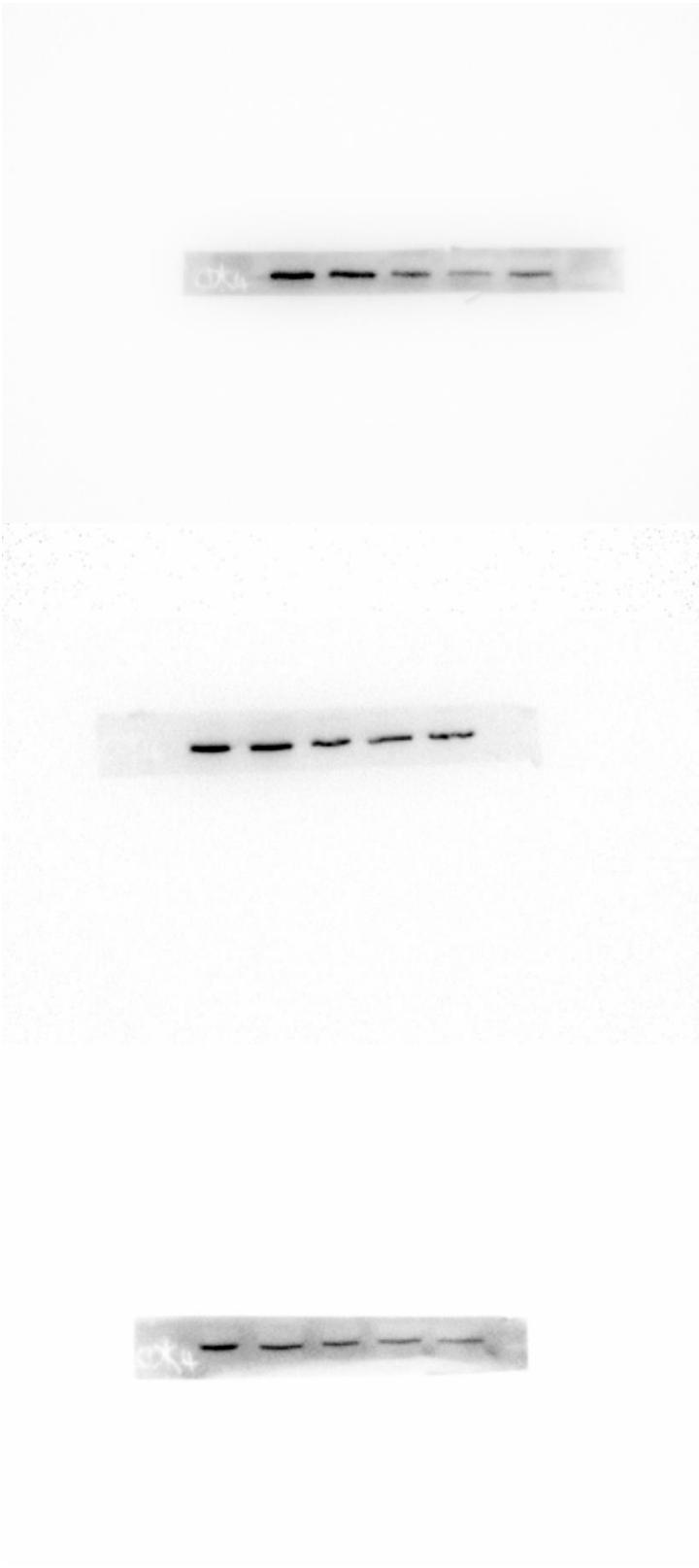
CDK2



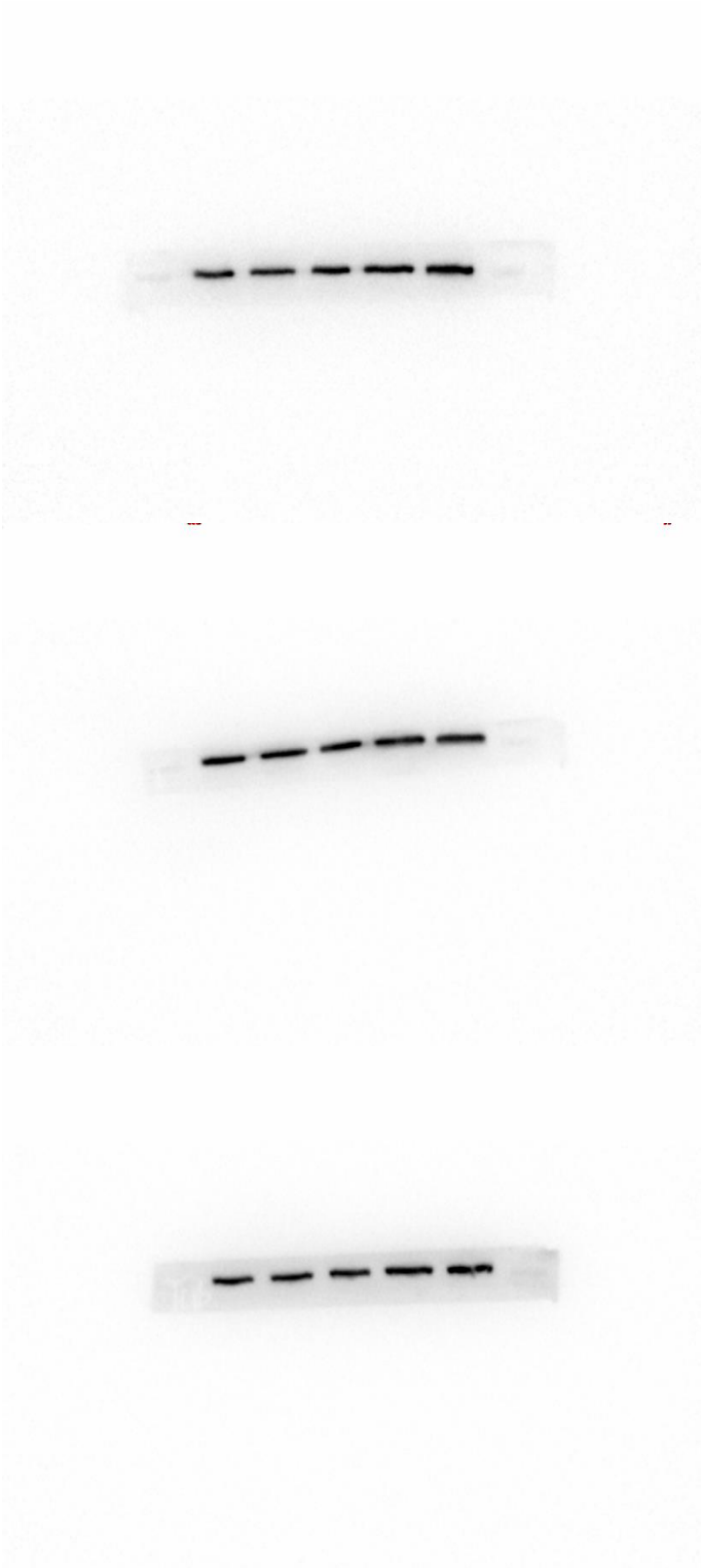
Cyclin D



CDK4

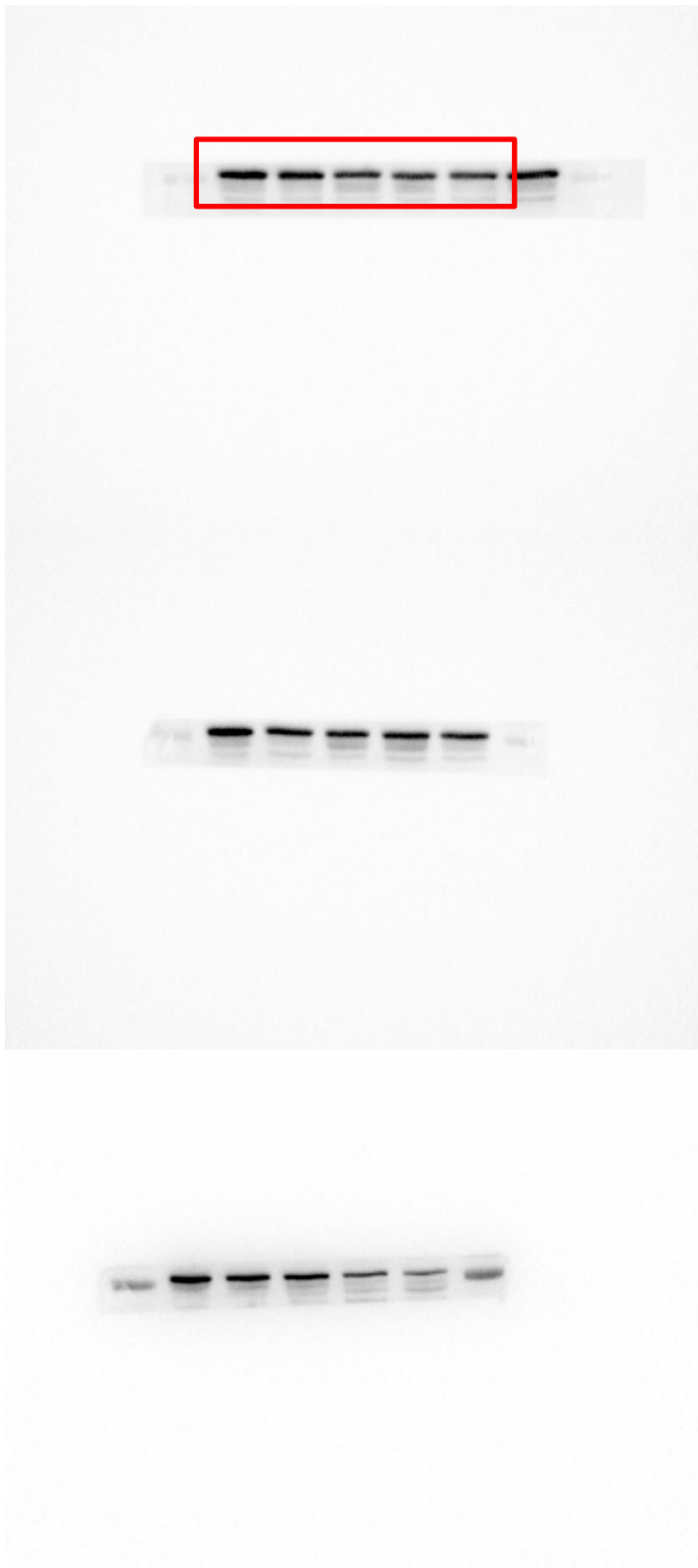


$\alpha$ -Tubulin



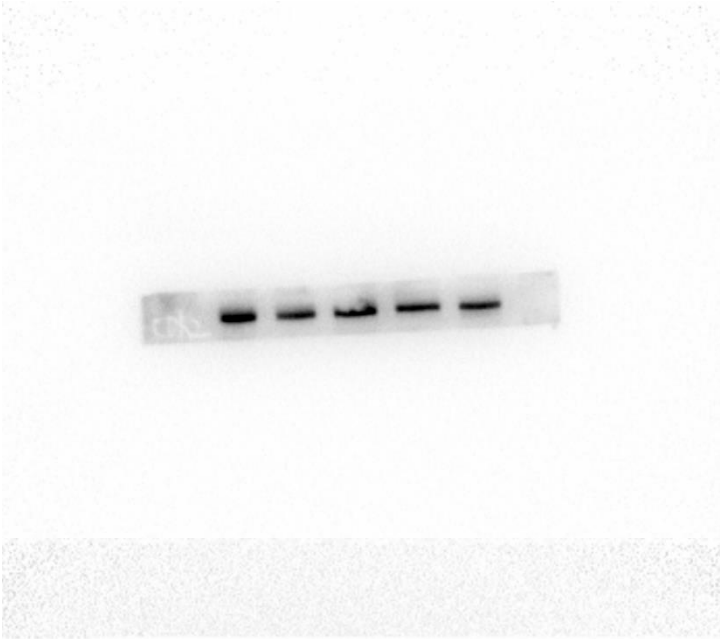
### 3.2 Uncropped Western Blots of 95-D cells about cell cycle regulatory proteins

Cyclin A

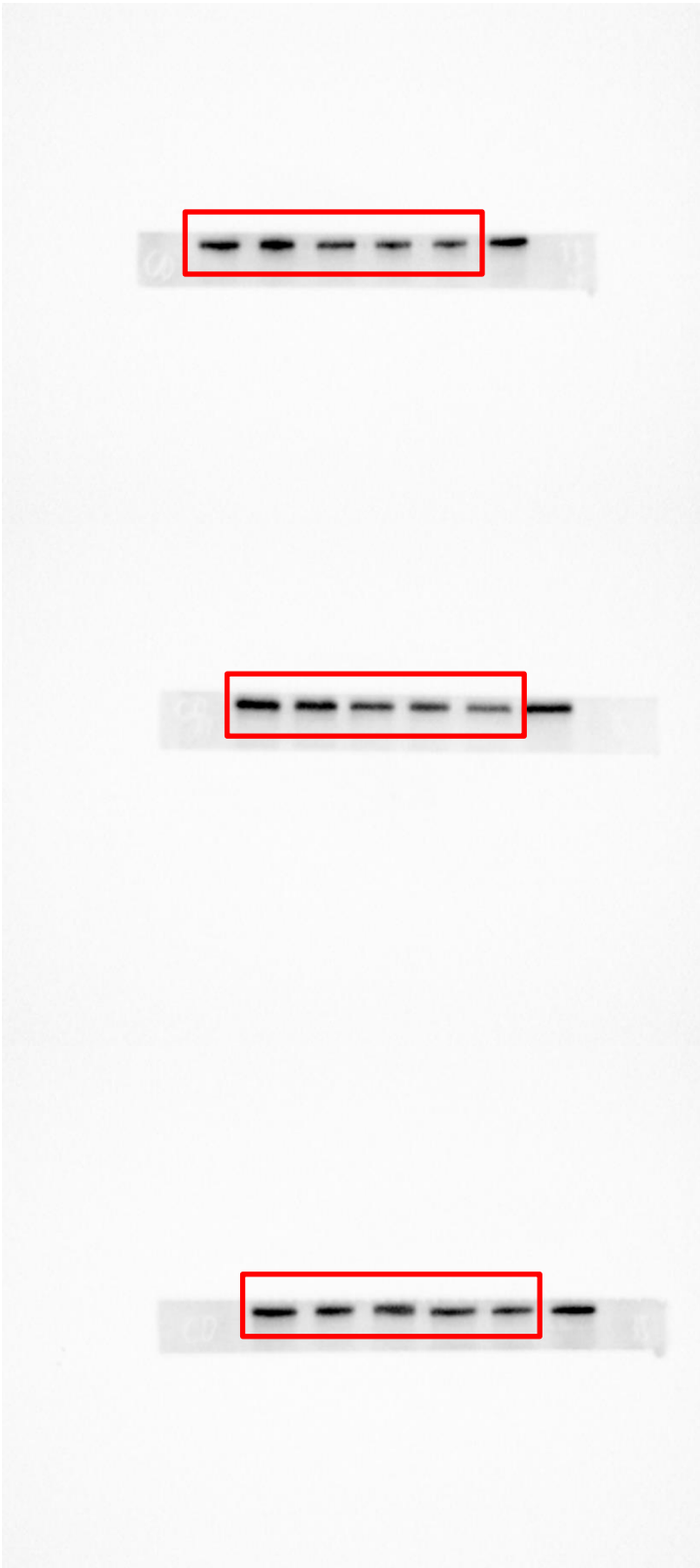




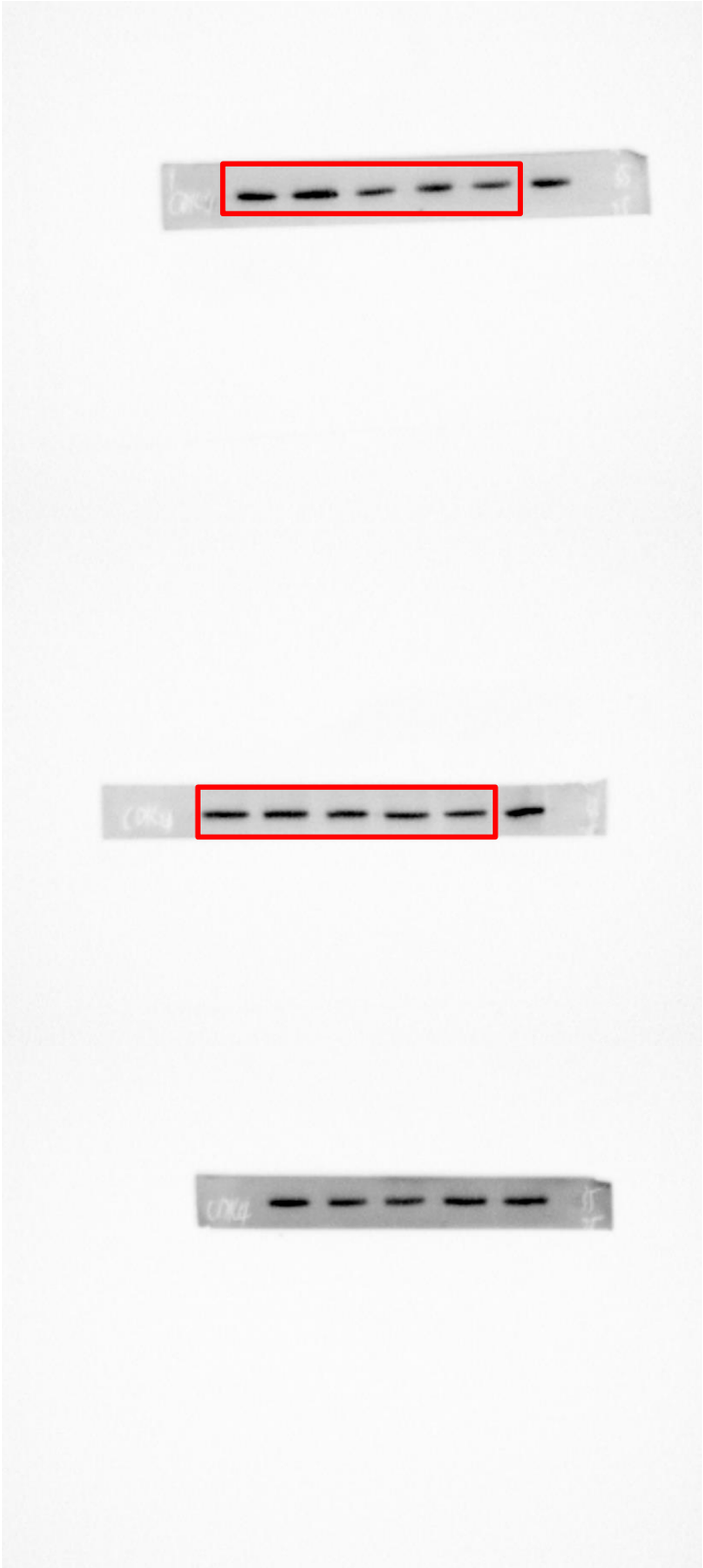
CDK2



Cyclin D



CDK4

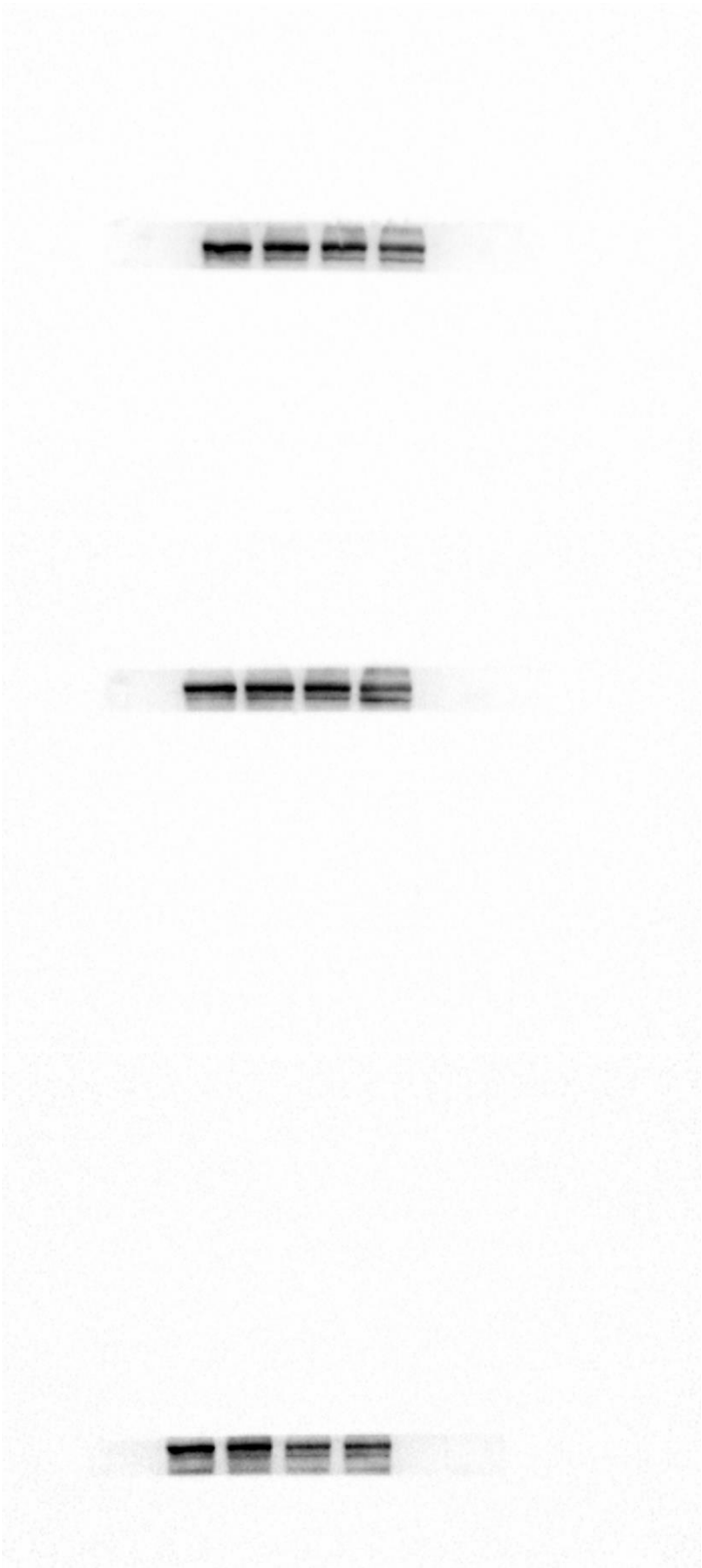


$\alpha$ -Tubulin

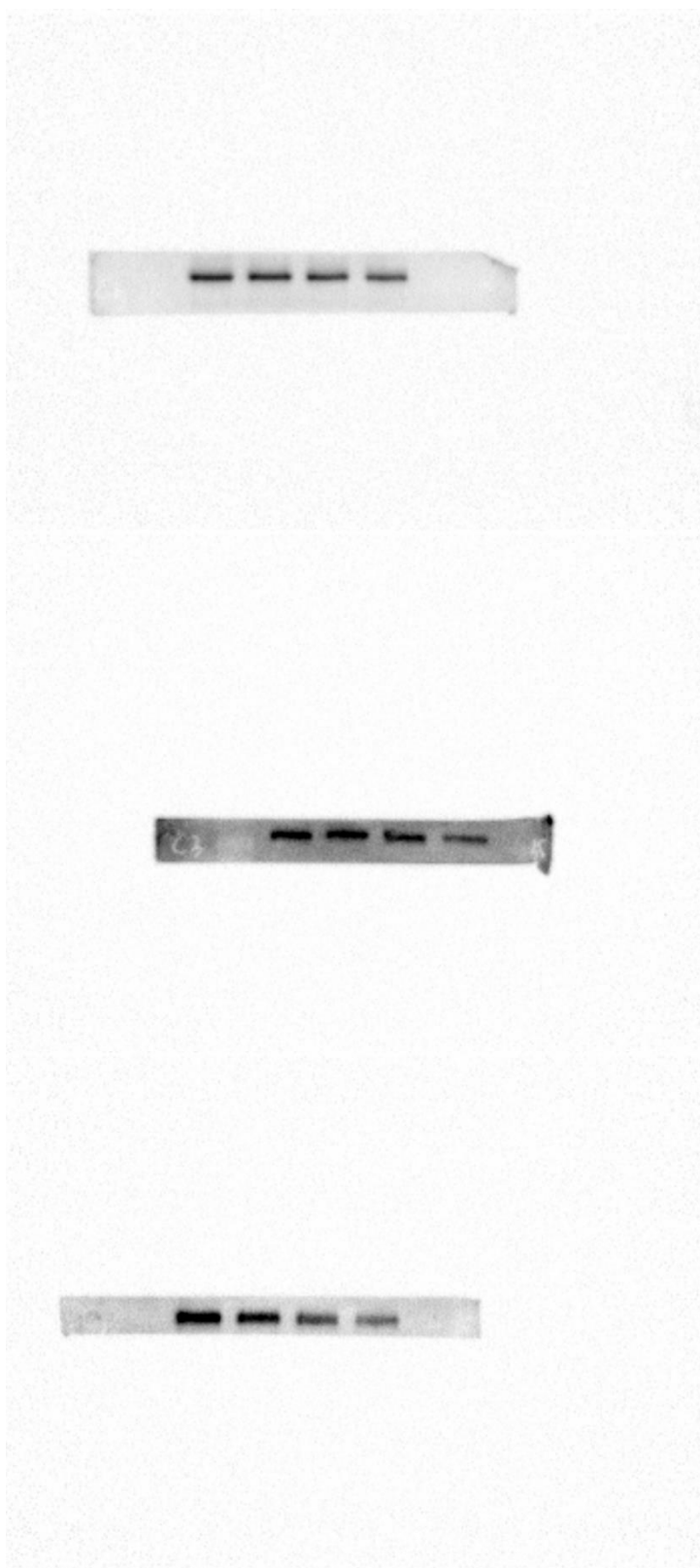


**3.3    Uncropped Western Blots of A549 cells associated with apoptosis-regulating proteins**

PARP1



pro-Caspase 3



pro-Caspase 9



Bcl-2

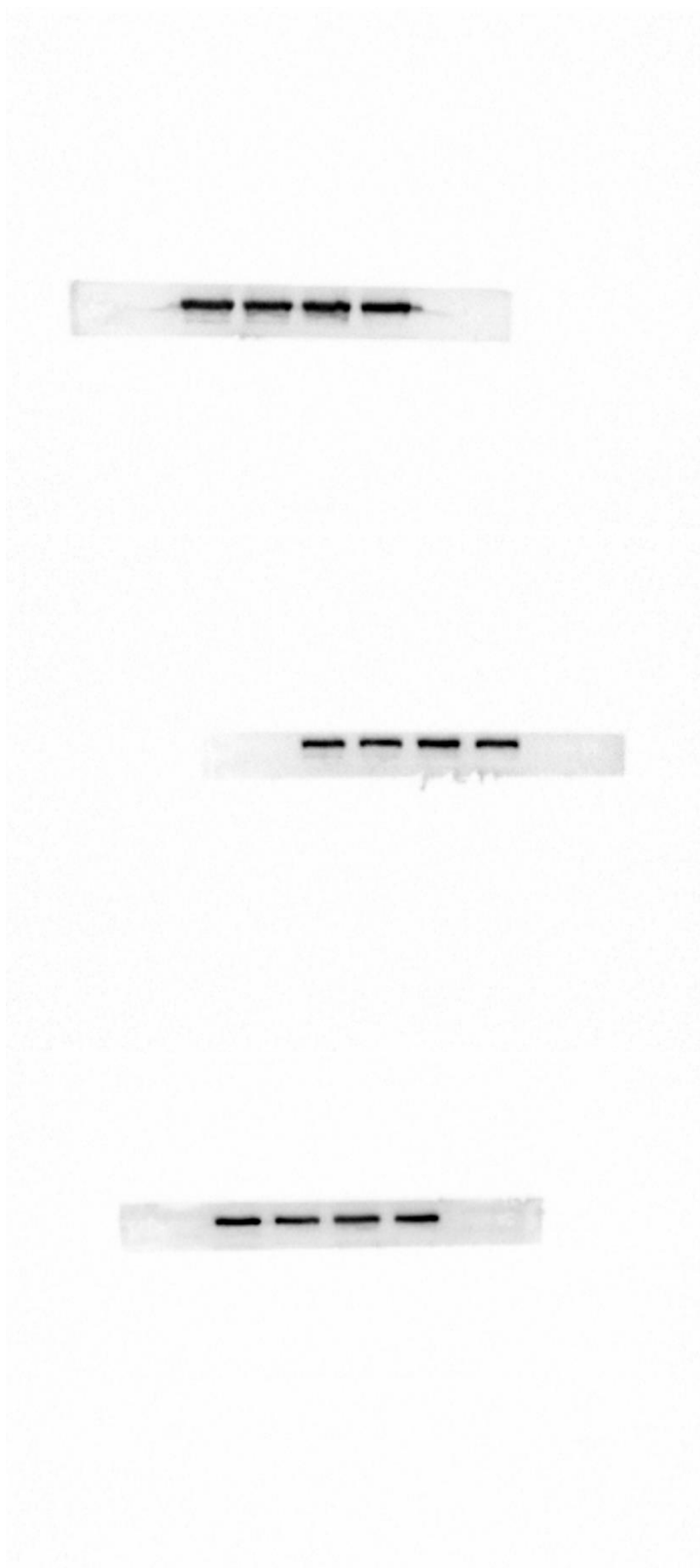




Bax



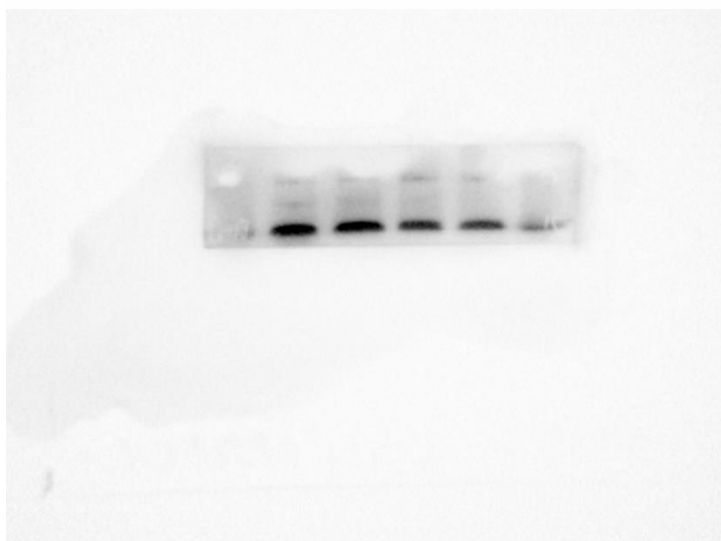
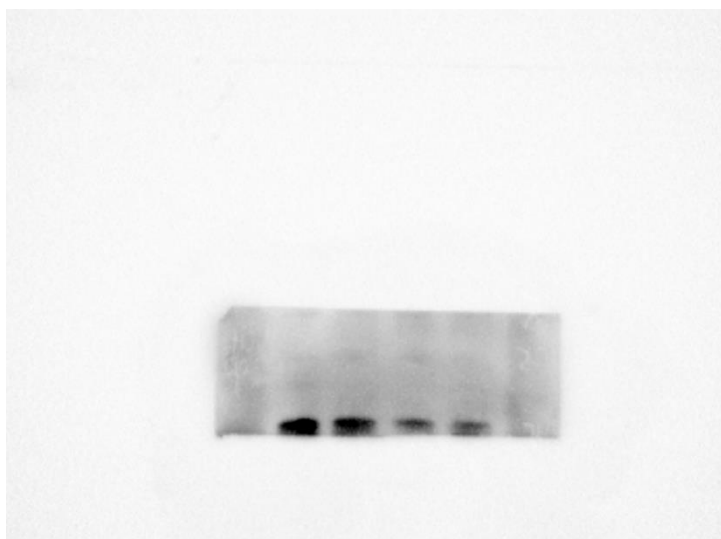
$\alpha$ -Tubulin



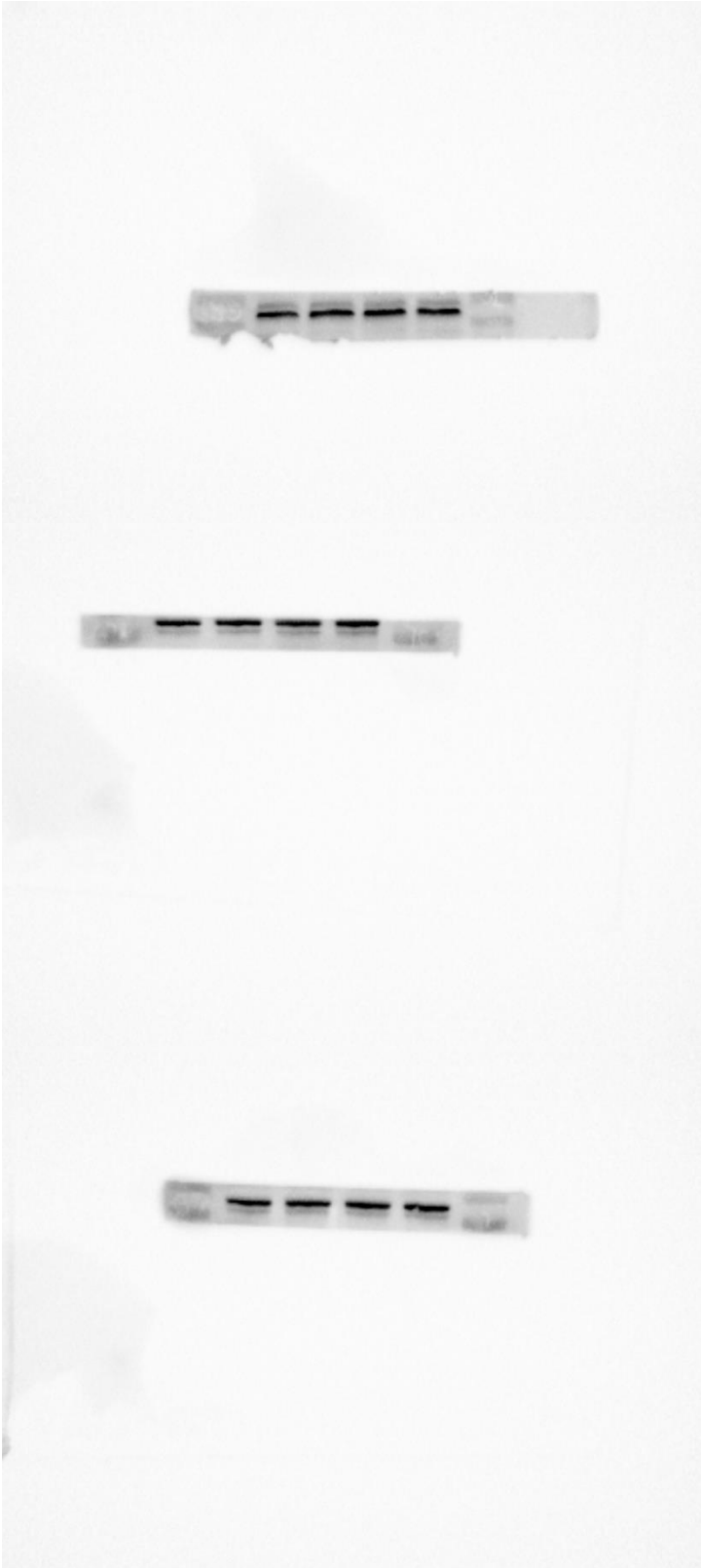
pro-Caspase 8



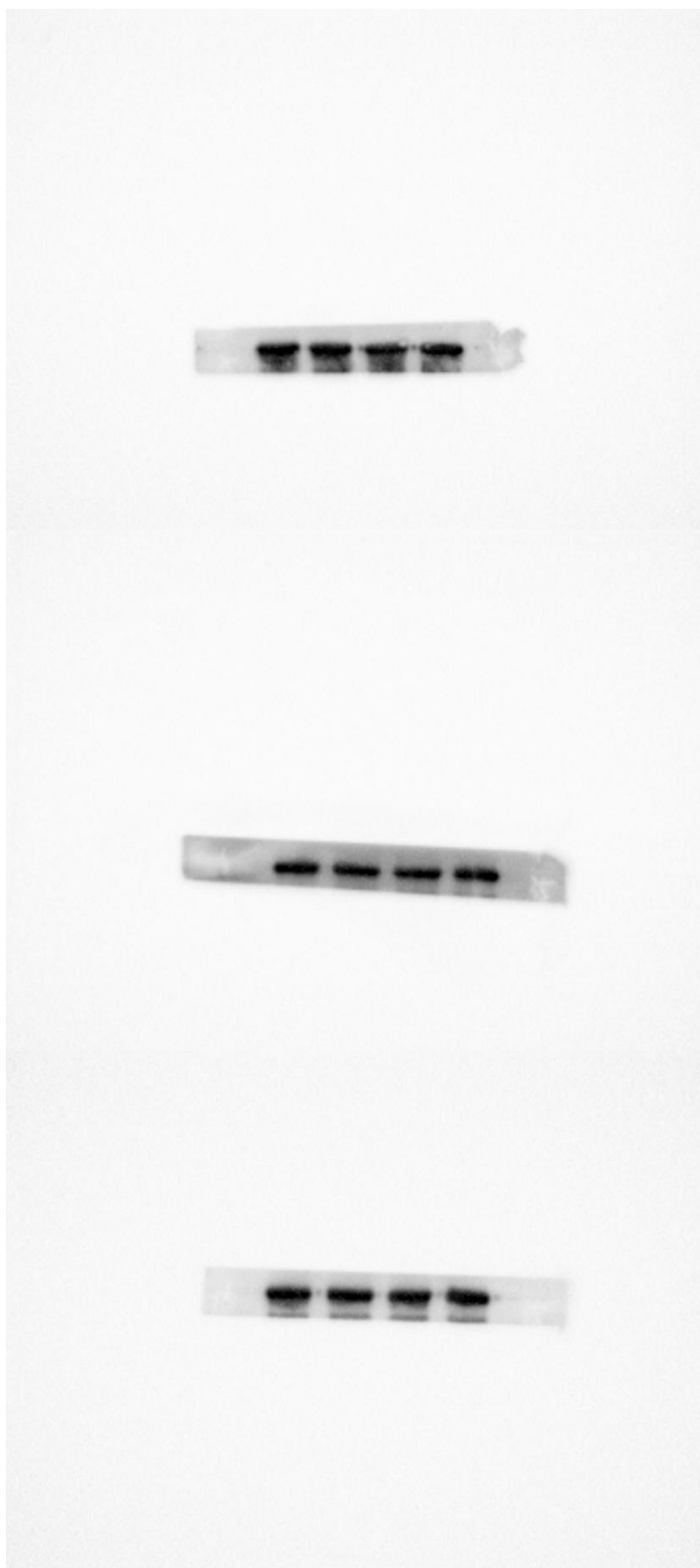
CHOP



GRP78



GAPDH



### 3.4 Uncropped Western Blots of proteins associated with the TNF signaling pathway in A549 cells

P65



P50







P38



JNK

