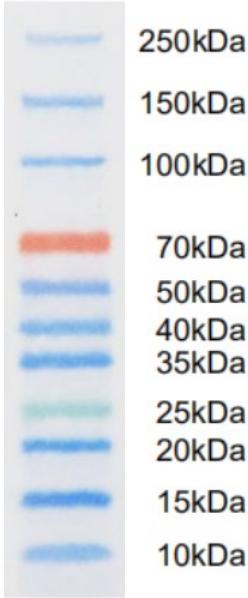
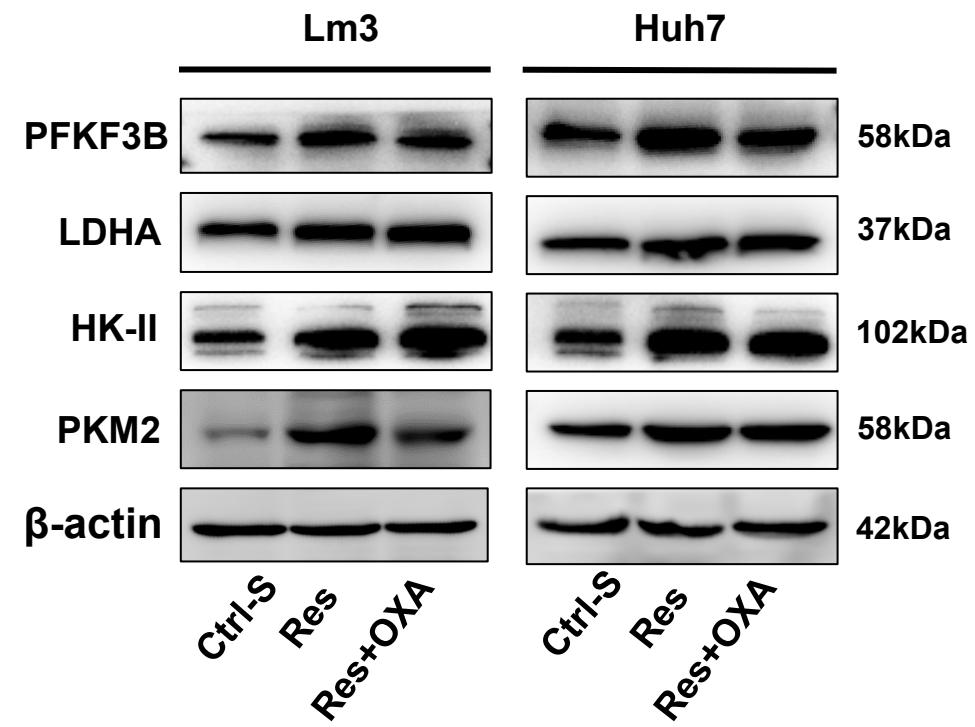


WJ103



The markers were purchased from Yazyme Biotechnology Co., Ltd. (WJ101, China), and their molecular weights are indicated in the figure. For our experiments, we utilize 10% or 12.5% SDS-PAGE gels. After transferring to a PVDF membrane (ISEQ00010, Merck KGaA, Darmstadt, Germany), we cut out the respective membrane segment based on the target protein's molecular weight and the intervals as indicated by the marker. Subsequently, the corresponding primary antibody for the target protein is incubated. Finally, the development of the western blot is carried out using ProteinSimple FluorChemE, eBlot Touch Imager, and Bio-Rad ChemiDoc western blot imaging system.

**Figure.1E**



Lm3

**PFKF3B 58kDa**

70kDa  
50kDa

**LDHA 37kDa**

50kDa  
40kDa

**HK-II 102kDa**

120kDa  
100kDa  
70kDa

**PKM2 58kDa**

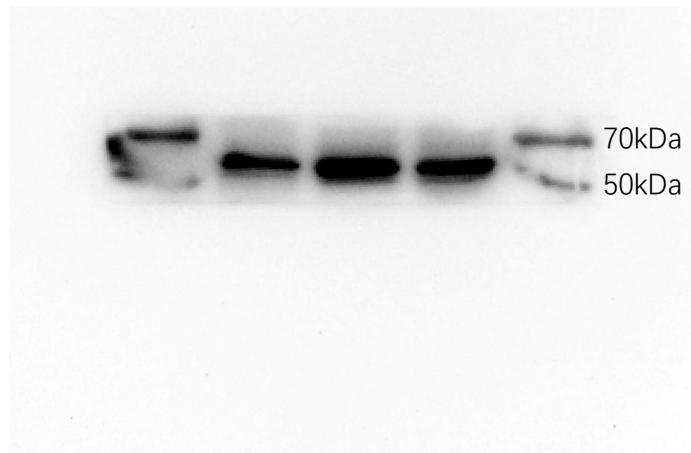
70kDa  
50kDa  
40kDa

**$\beta$ -actin 42kDa**

50kDa  
40kDa

Huh7

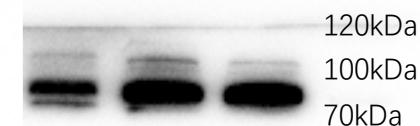
**PFKF3B 58kDa**



**LDHA 37kDa**



**HK-II 102kDa**



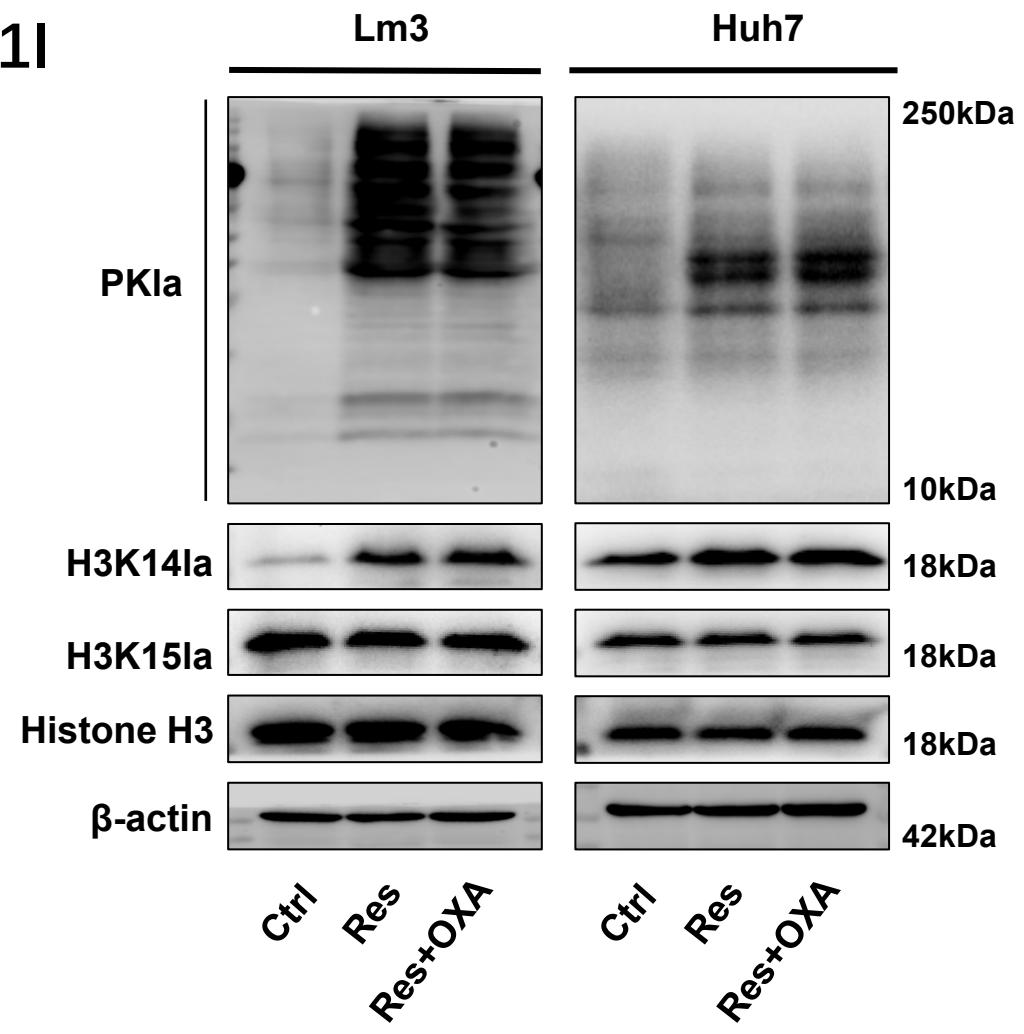
**PKM2 58kDa**



**$\beta$ -actin 42kDa**

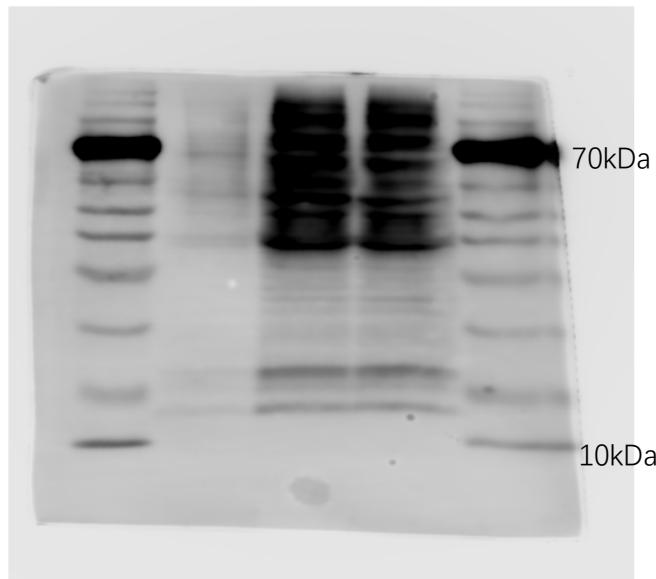


**Figure.1I**

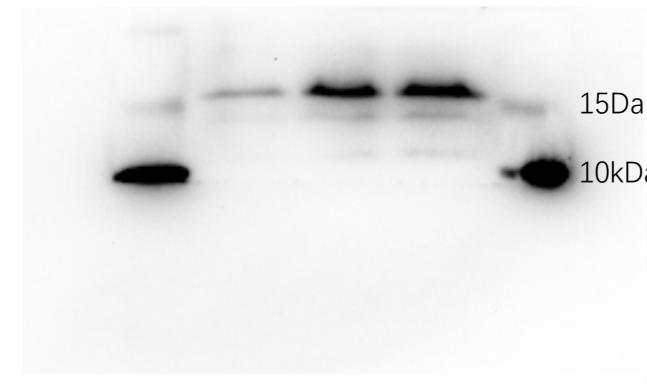


Lm3

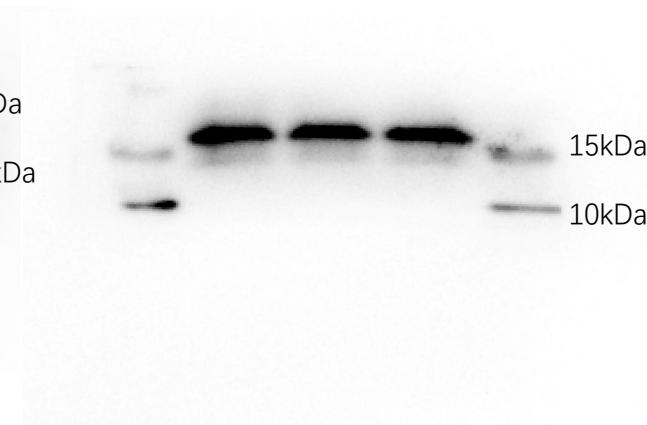
Pkla 10-250kDa



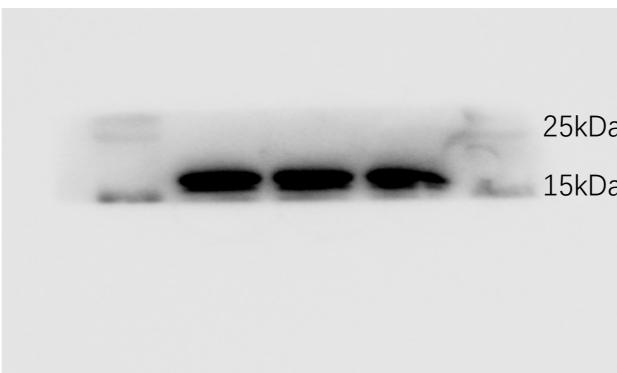
H3K14la 18kDa



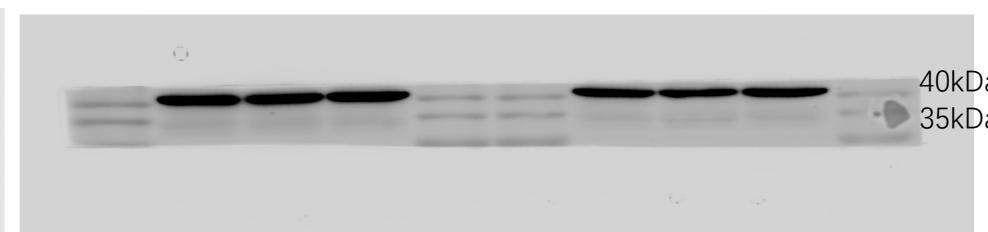
H3K15la 18kDa



Histone H3 18kDa

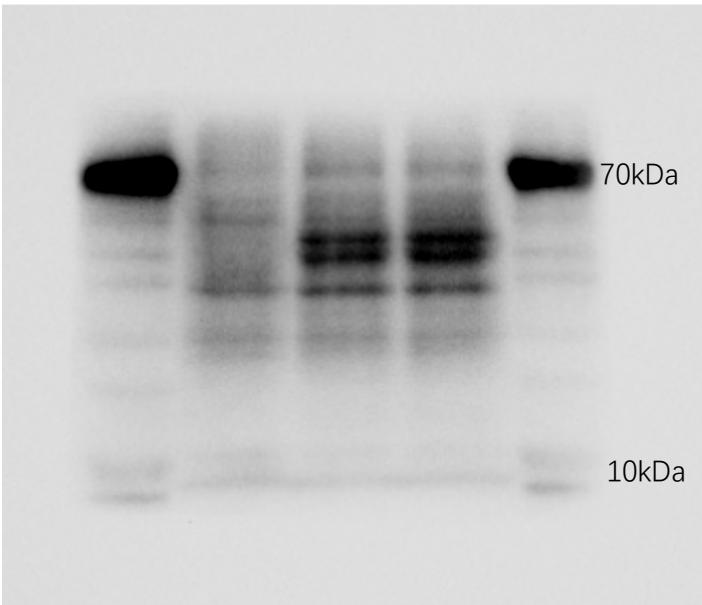


$\beta$ -actin 42kDa

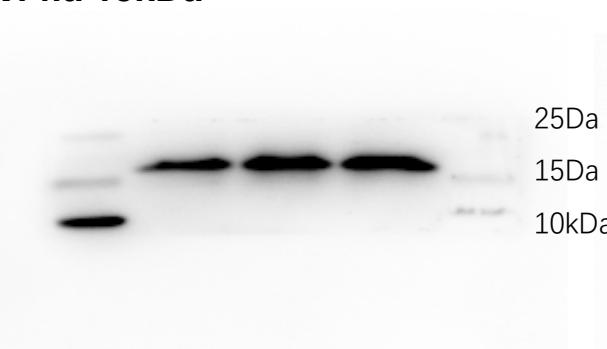


Huh7

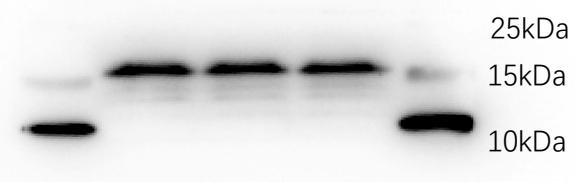
**Pkla 10-250kDa**



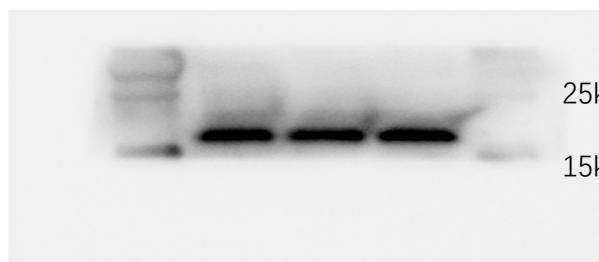
**H3K14la 18kDa**



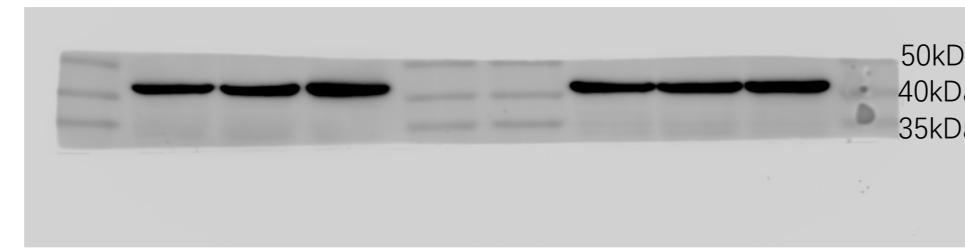
**H3K15la 18kDa**



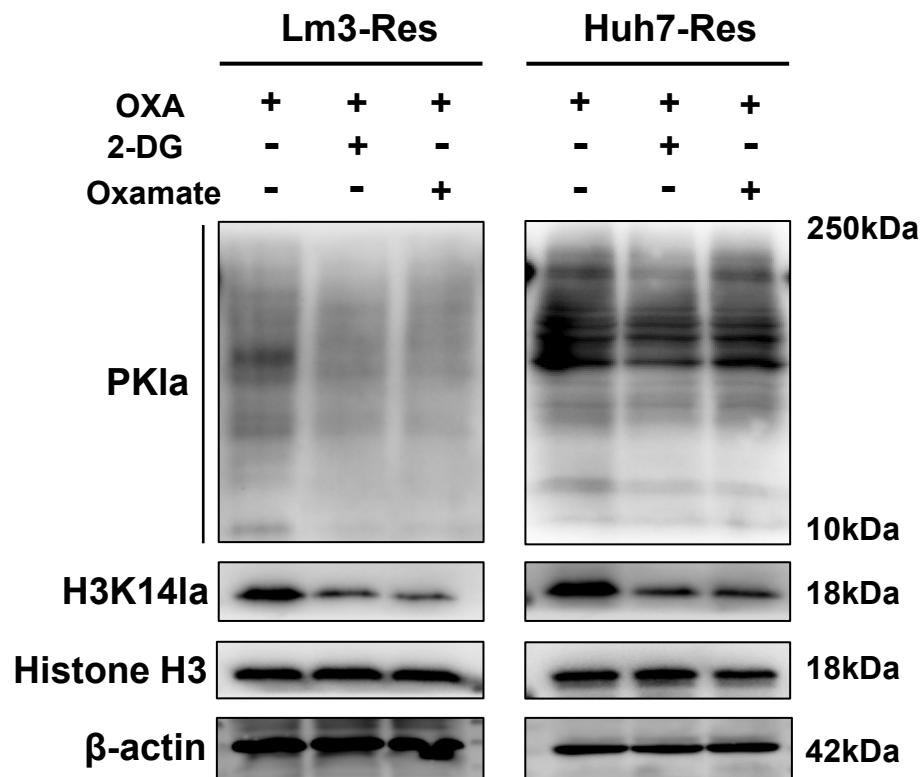
**Histone H3 18kDa**



**$\beta$ -actin 42kDa**

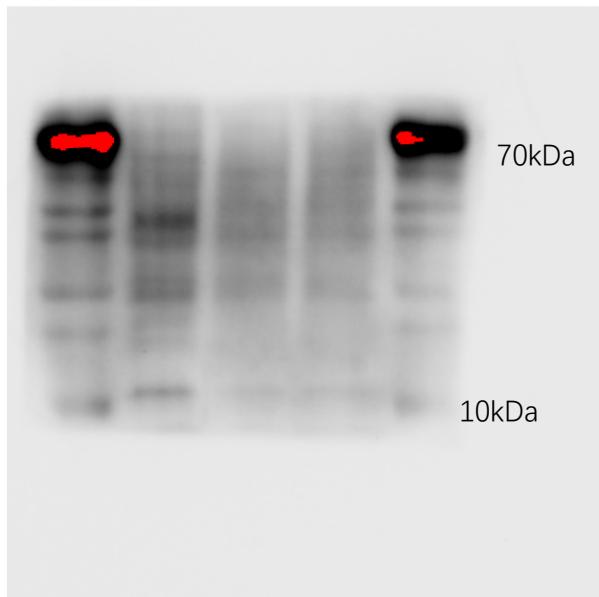


# Figure.2B

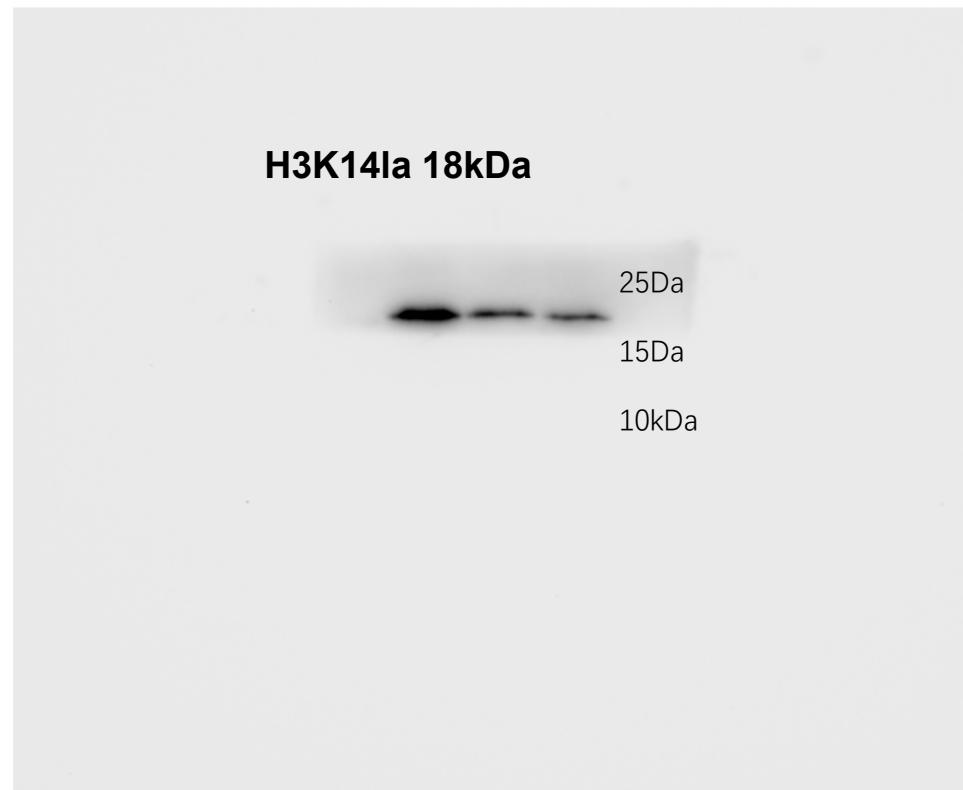


# Lm3-Res

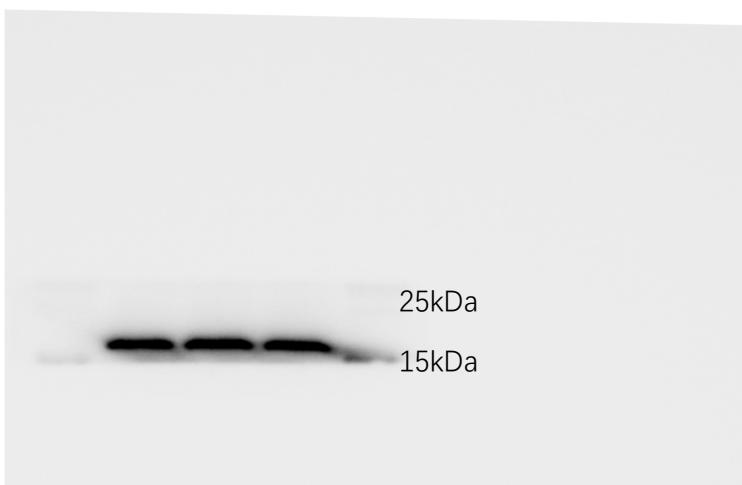
**Pk1a 10-250kDa**



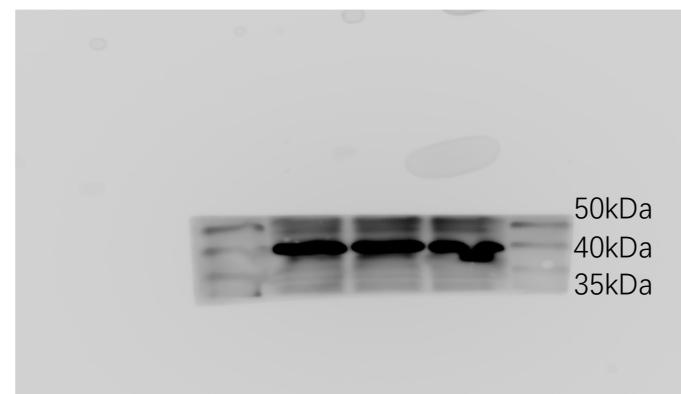
**H3K14la 18kDa**



**Histone H3 18kDa**

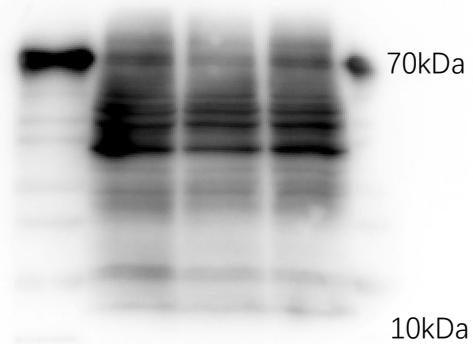


**$\beta$ -actin 42kDa**

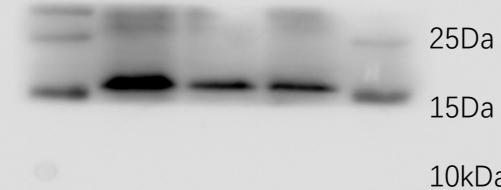


Huh7-Res

Pkla 10-250kDa



H3K14la 18kDa



Histone H3 18kDa



$\beta$ -actin 42kDa

50kDa  
40kDa  
35kDa

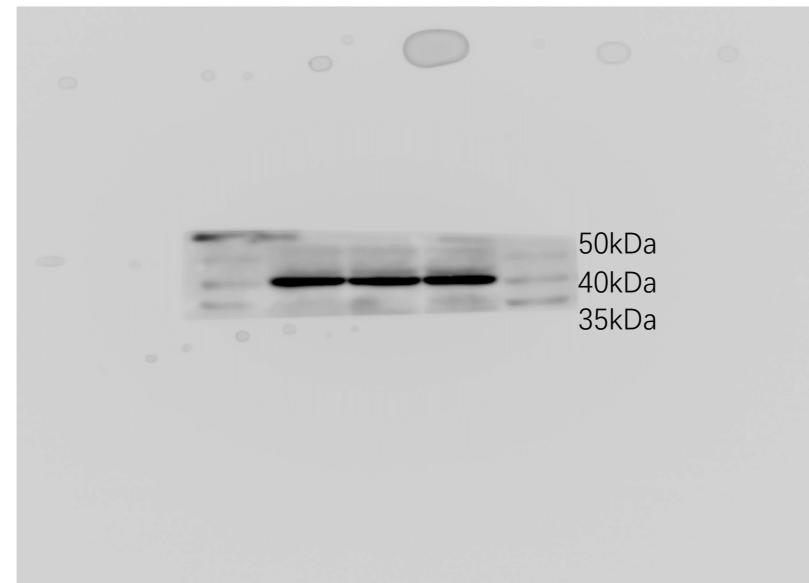
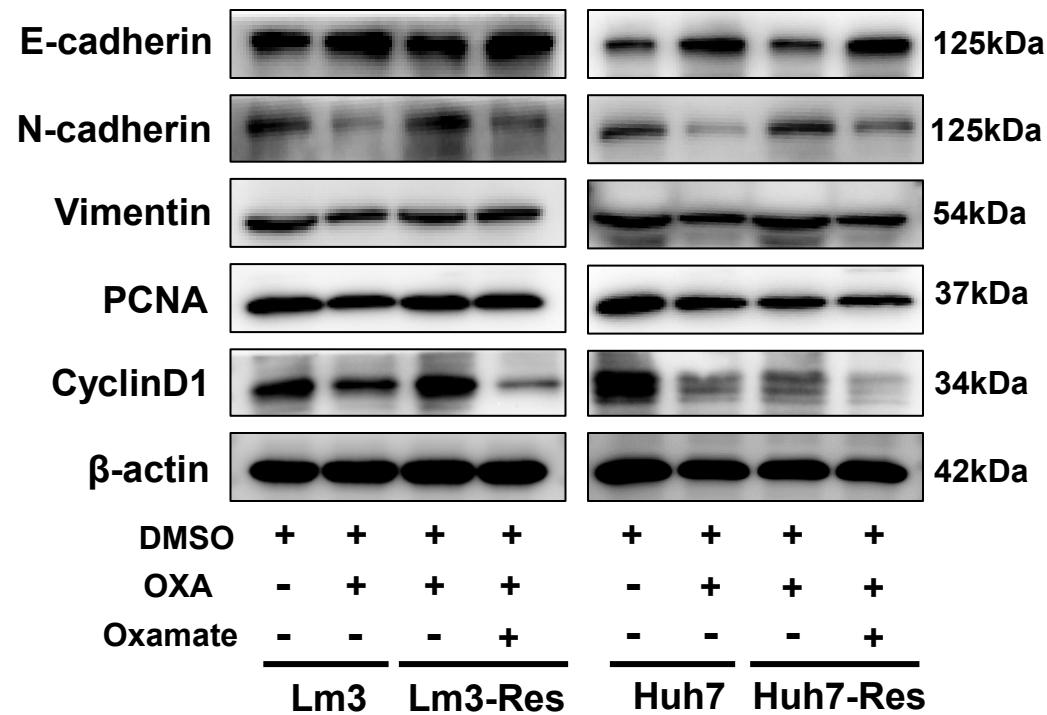
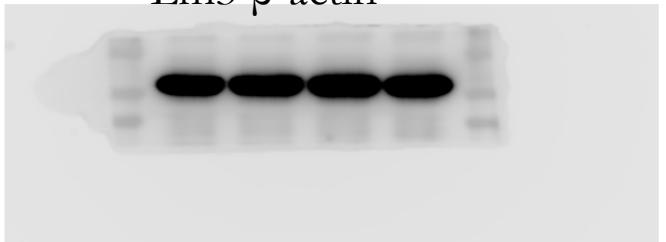


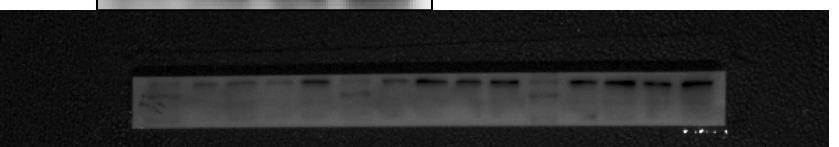
Figure.2F



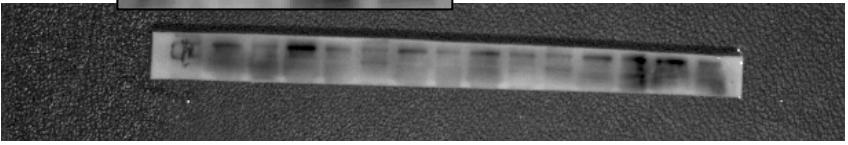
Lm3  $\beta$ -actin



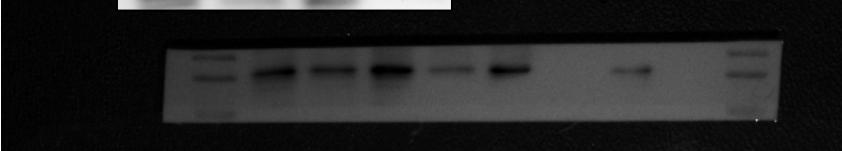
lm3 E-cadherin



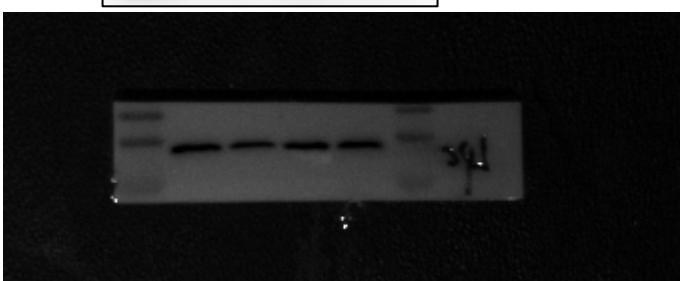
lm3 N-cadherin



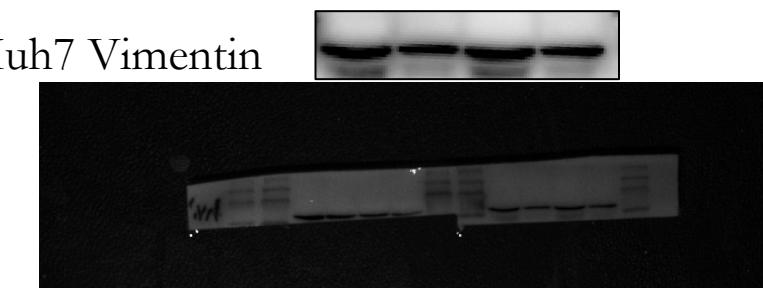
Lm3 CyclinD1 37kDa



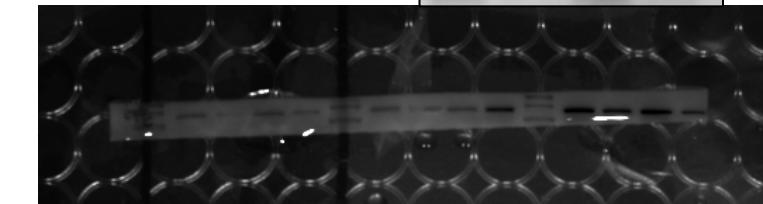
PCNA 37kDa



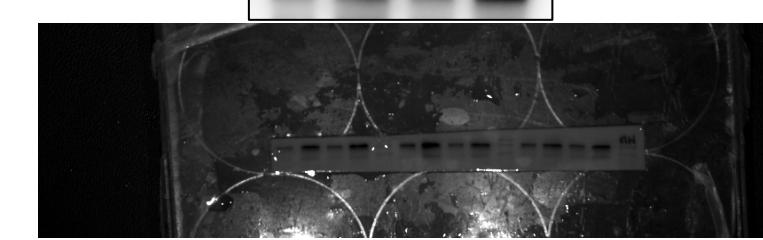
Huh7 Vimentin



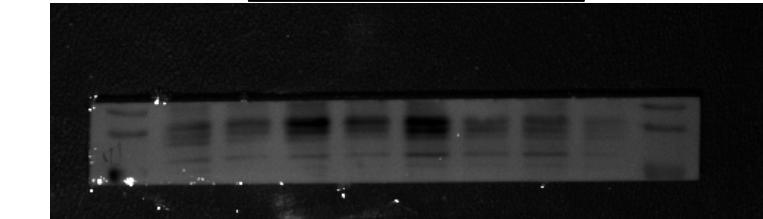
Huh7 N-cadherin



Huh7 E-cadherin



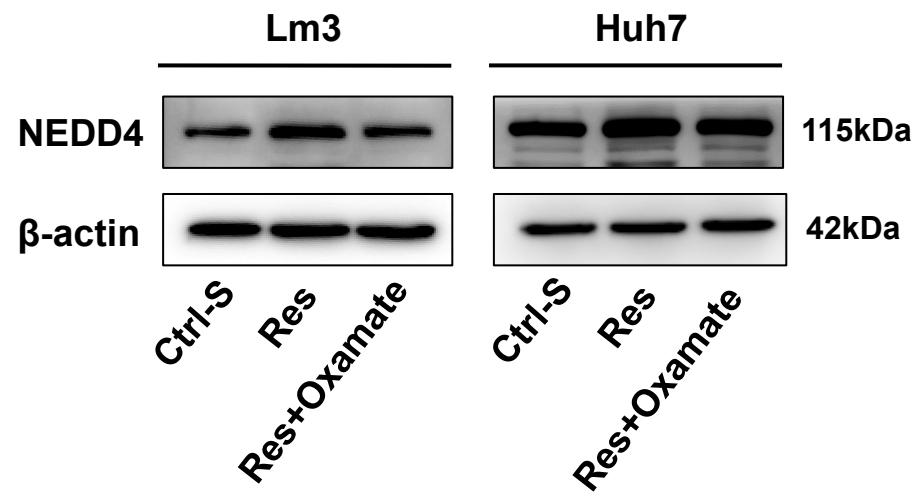
Huh7 CyclinD1 37kDa



Huh7  $\beta$ -actin



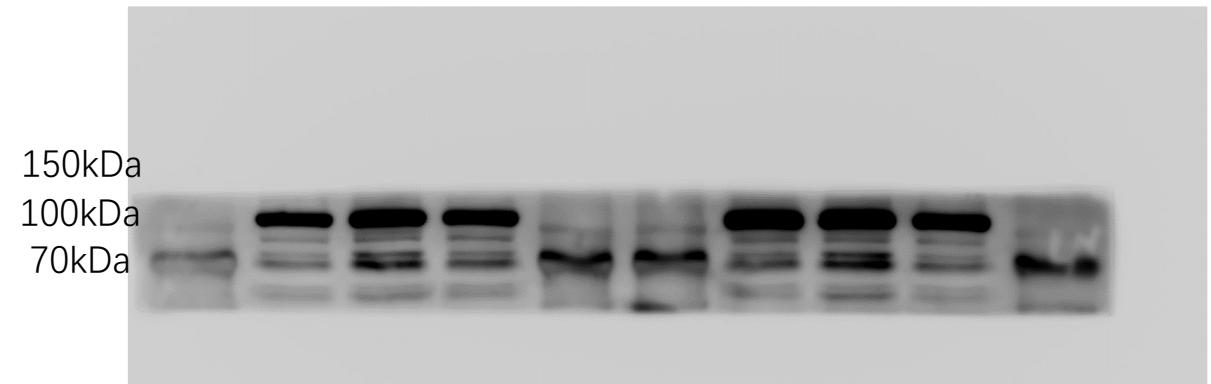
**Figure.3G**



Lm3 NEDD4 115kDa



Huh7 NEDD4 115kDa



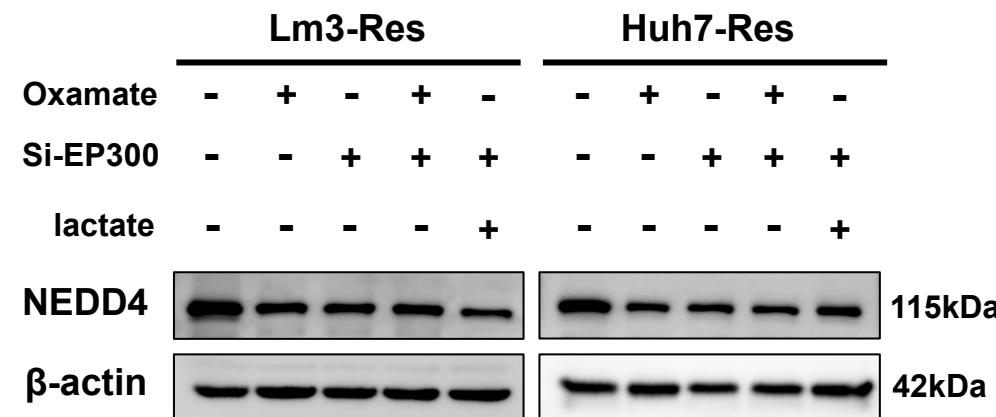
Lm3 β-actin 42kDa



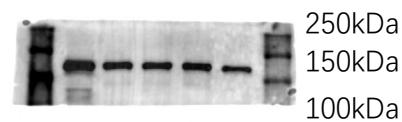
Huh7 β-actin 42kDa



# Figure.3H



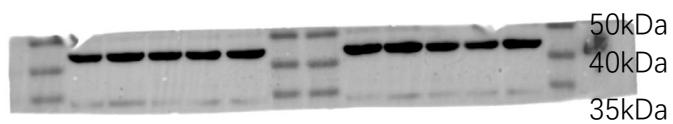
Lm3 NEDD4 115kDa



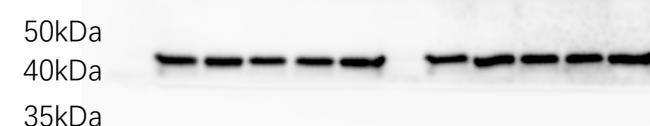
Huh7 NEDD4 115kDa



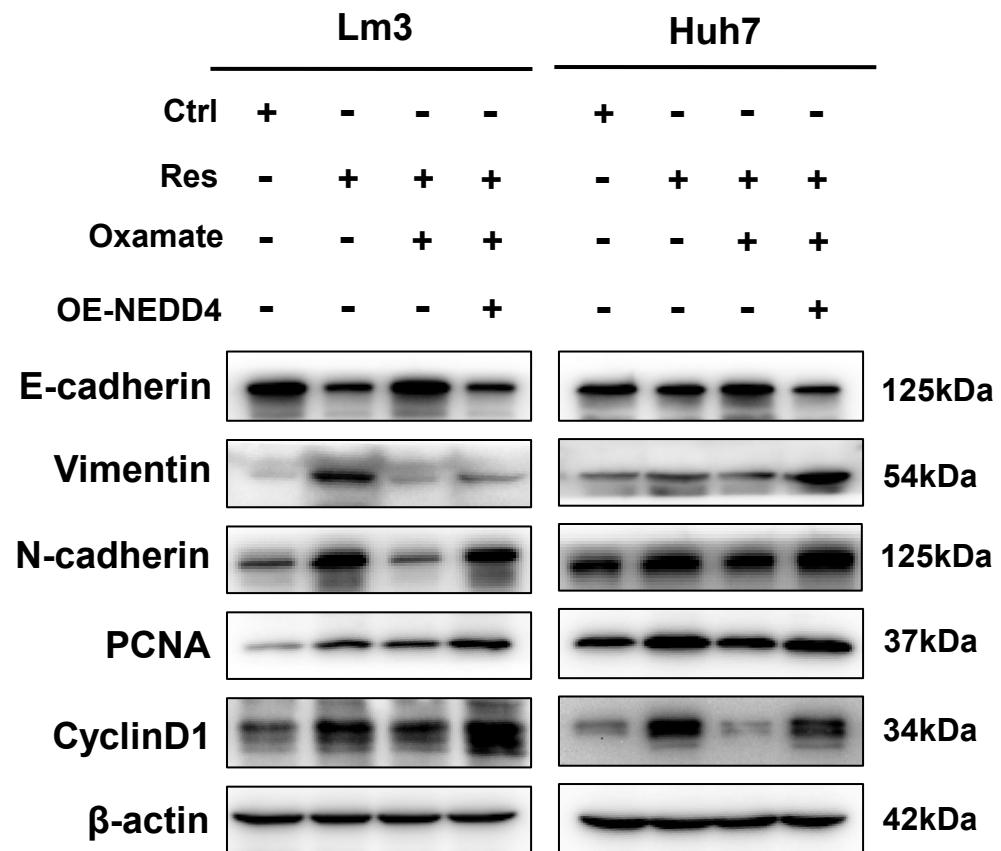
Lm3 β-actin 42kDa

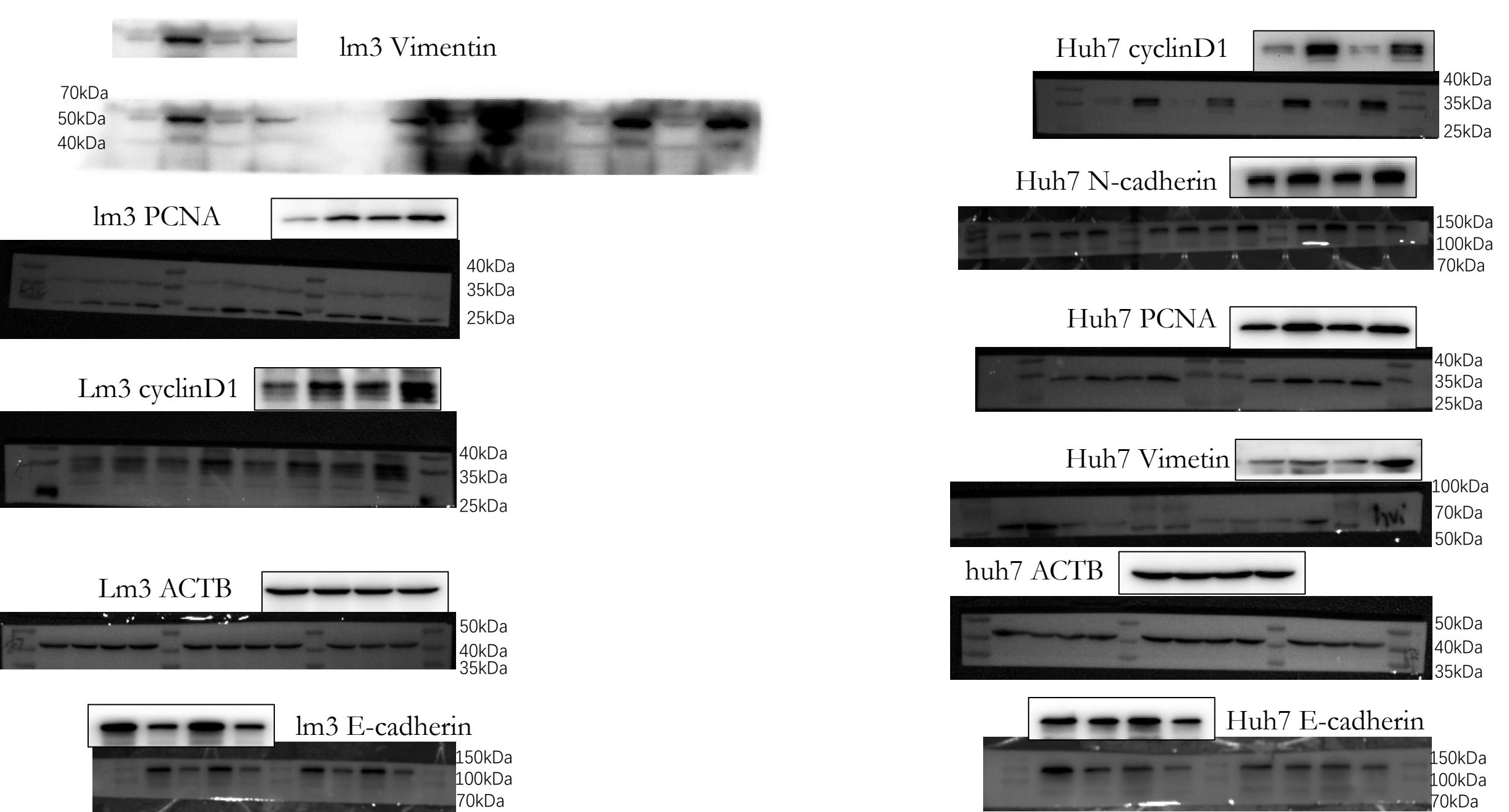


Huh7 β-actin 42kDa

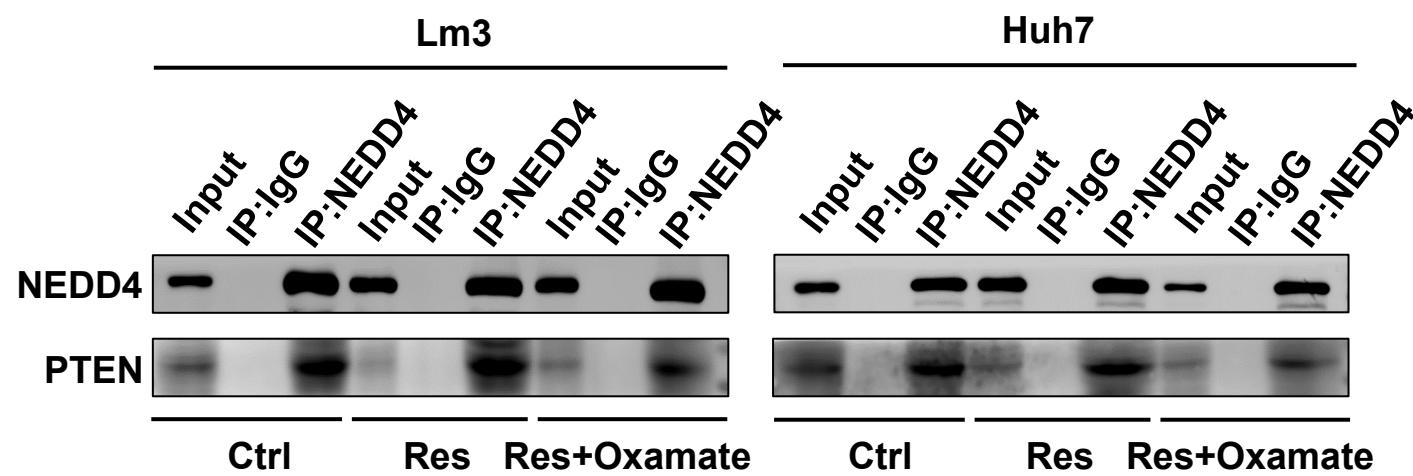


**Figure.4E**

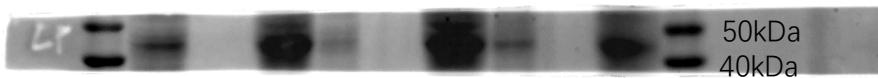




**Figure.5B**

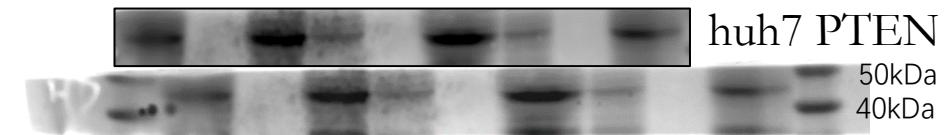


Lm3 PTEN



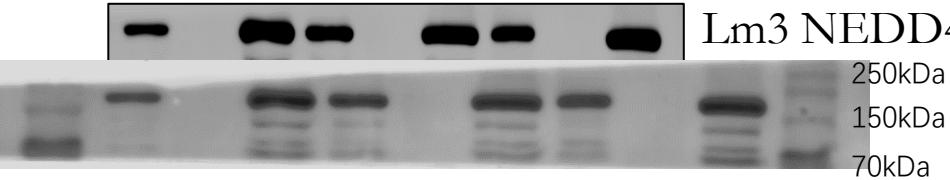
50kDa  
40kDa

huh7 PTEN



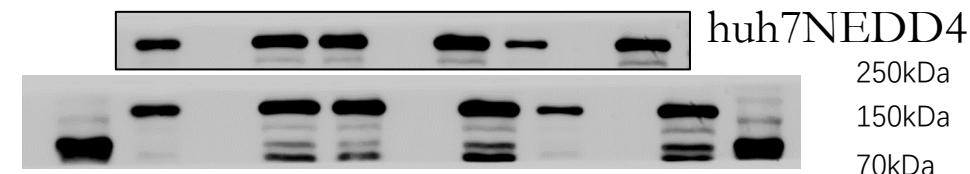
50kDa  
40kDa

Lm3 NEDD4



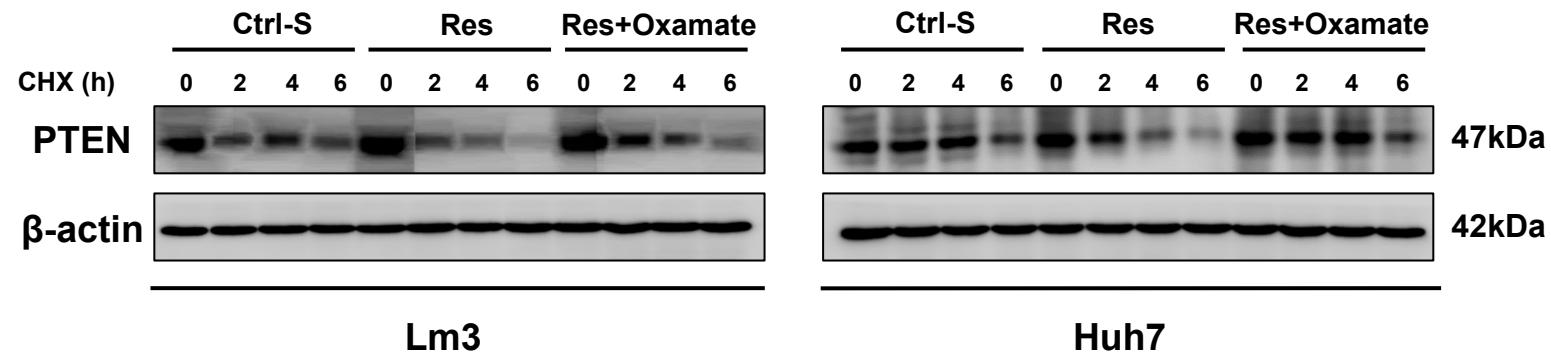
250kDa  
150kDa  
70kDa

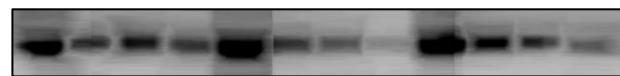
huh7NEDD4



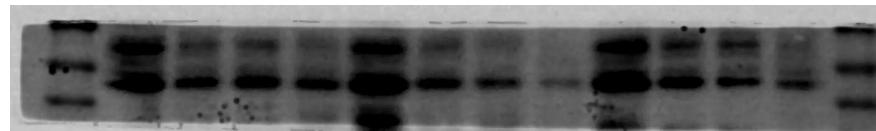
250kDa  
150kDa  
70kDa

# Figure.5C

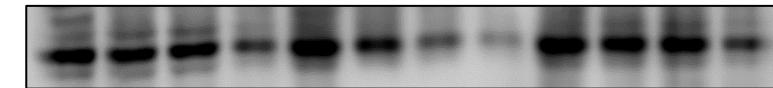




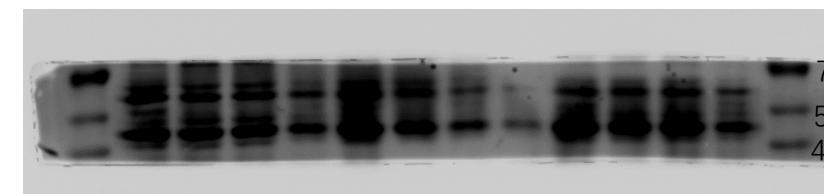
Lm3 PTEN



70kDa  
50kDa  
40kDa

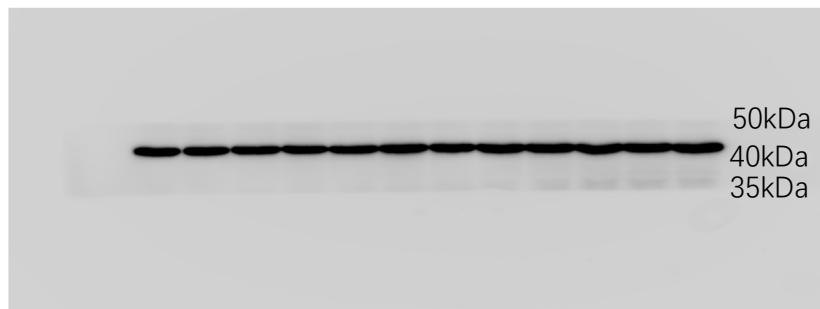


huh7 PTEN



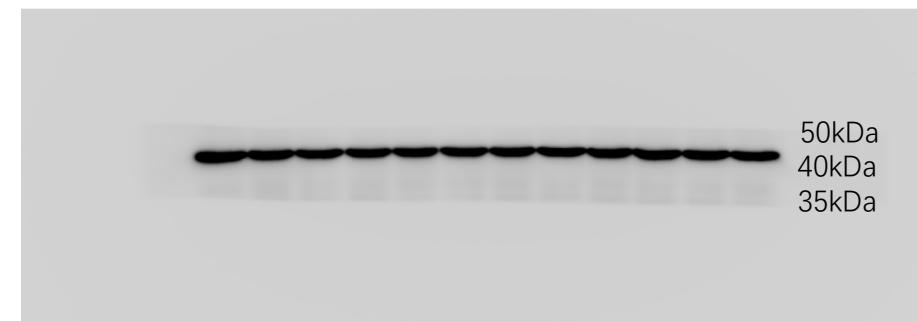
70kDa  
50kDa  
40kDa

Lm3 ACTB



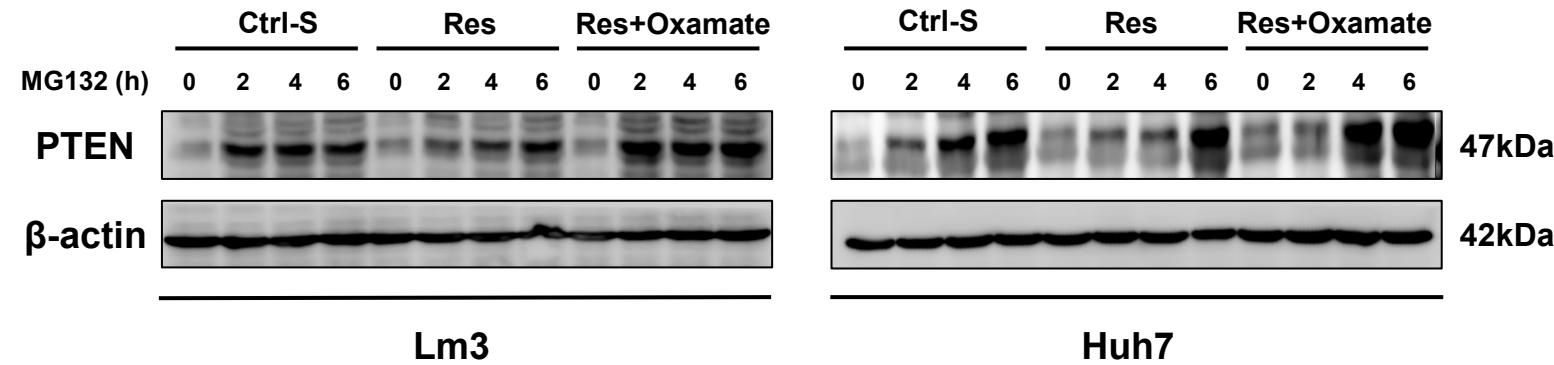
50kDa  
40kDa  
35kDa

Huh7 ACTB

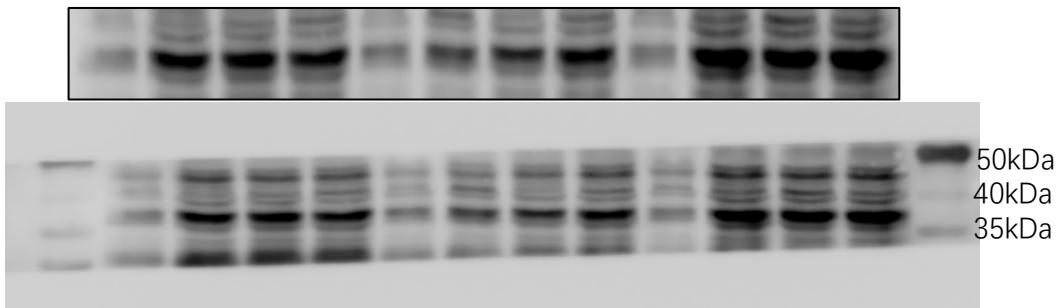


50kDa  
40kDa  
35kDa

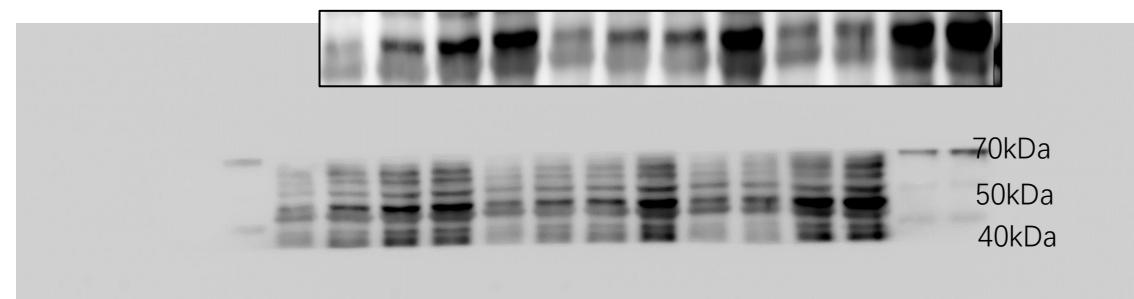
# Figure.5D



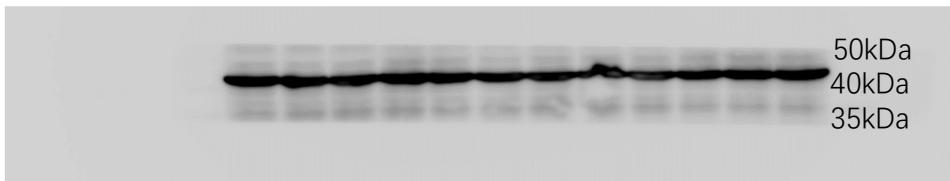
Lm3 PTEN



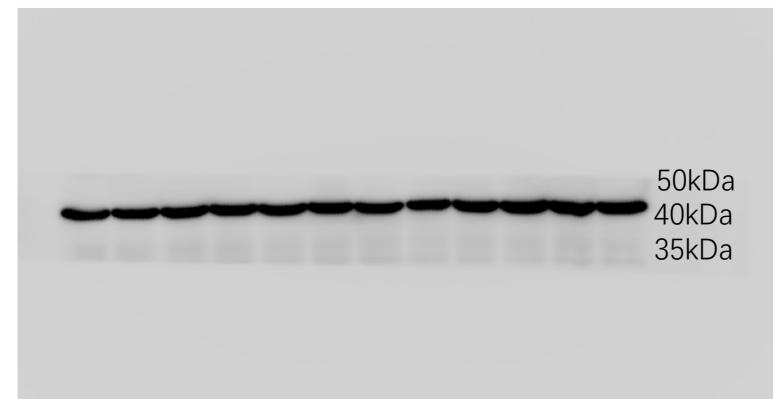
huh7 PTEN



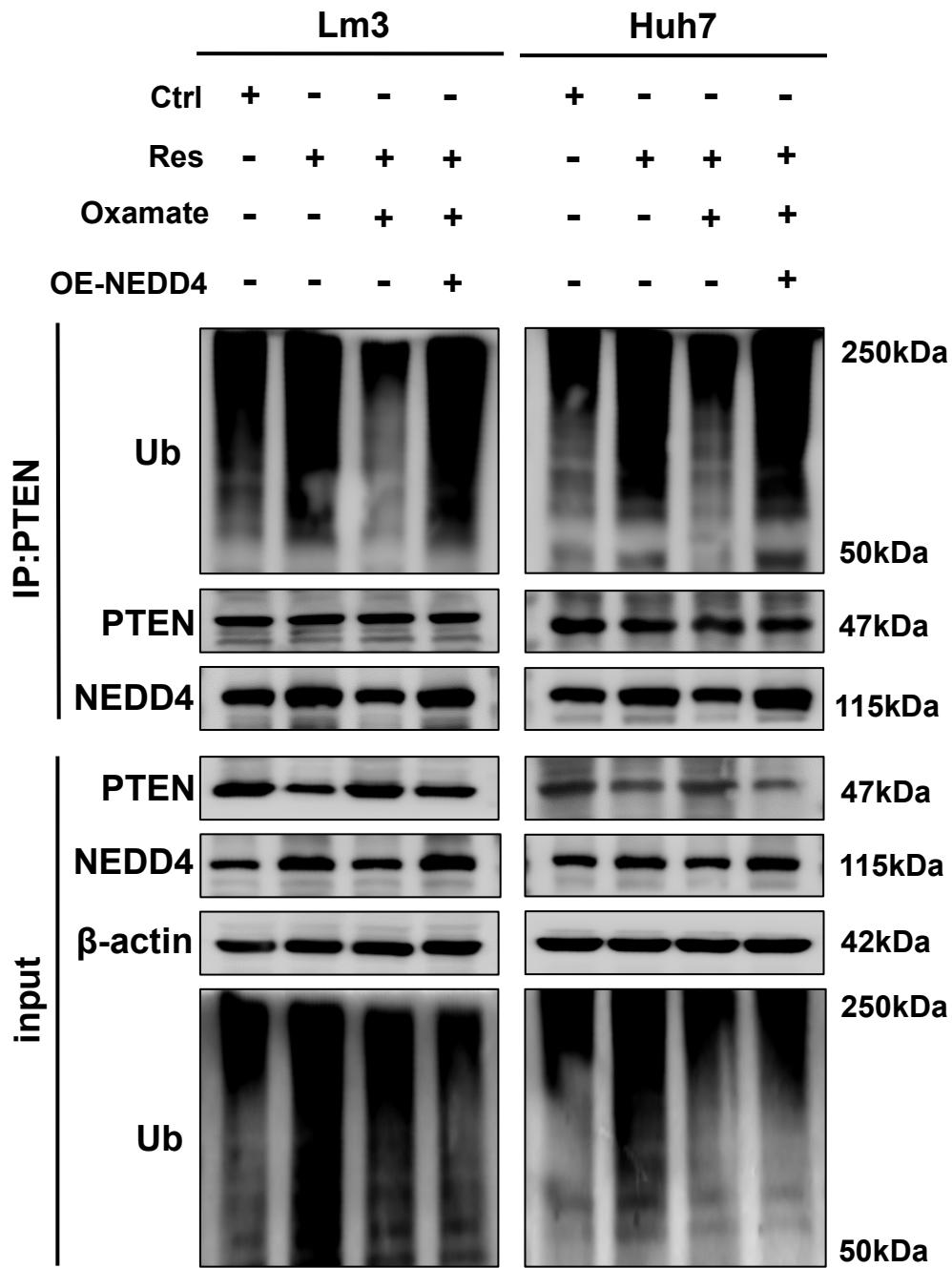
Lm3 actb



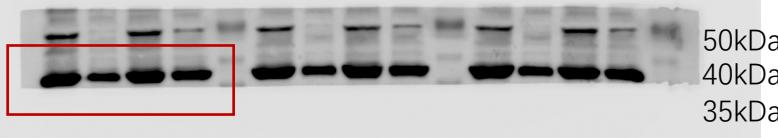
Huh7 actb



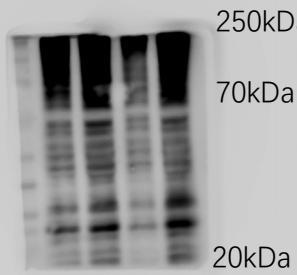
# Figure.5H



PTEN 47kDa



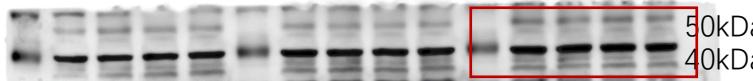
Ub



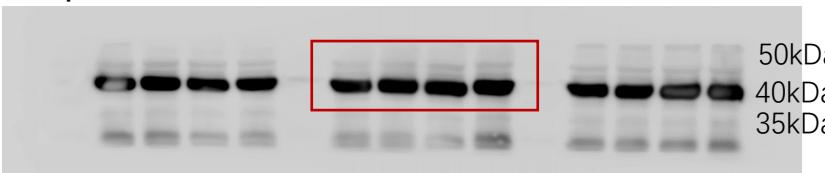
NEDD4 115kDa



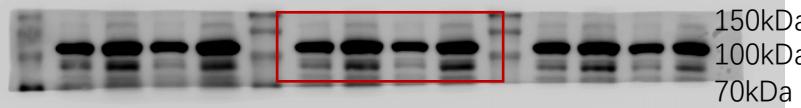
PTEN 47kDa



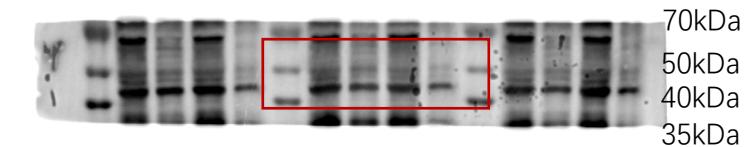
$\beta$ -actin 42kDa



NEDD4 115kDa



PTEN 47kDa



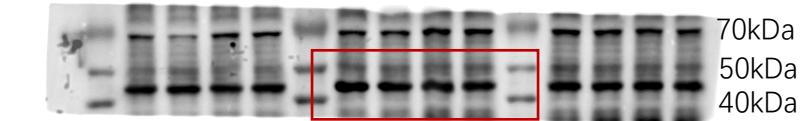
NEDD4 115kDa



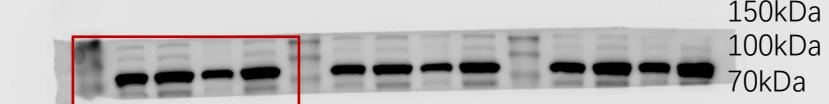
$\beta$ -actin 42kDa

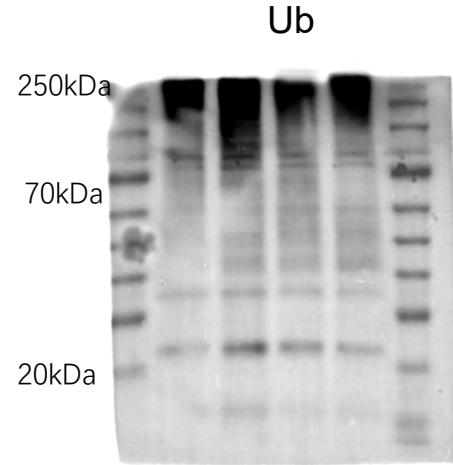
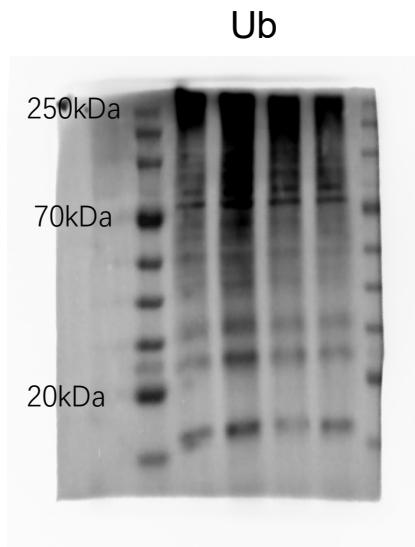


PTEN 47kDa

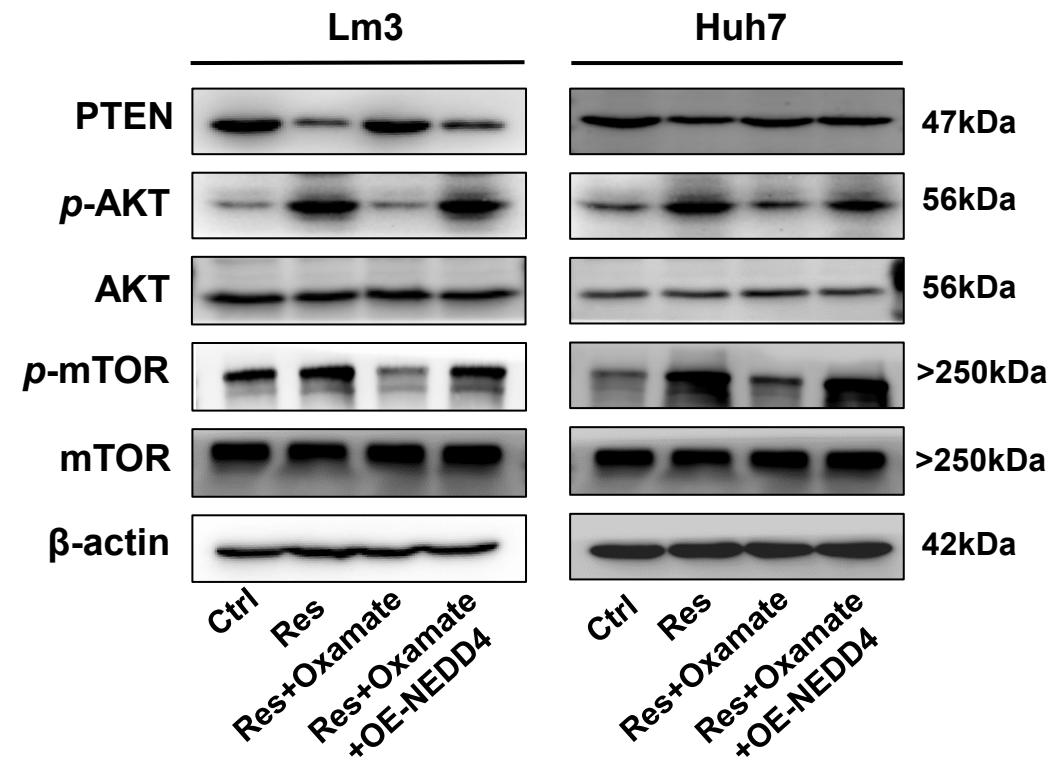


NEDD4 115kDa

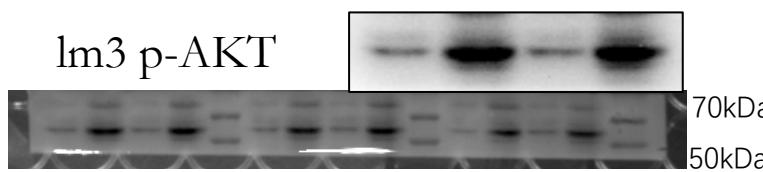




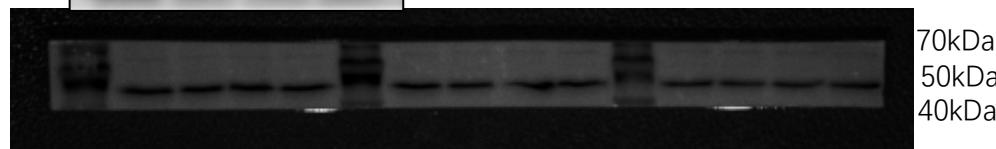
**Figure.5H**



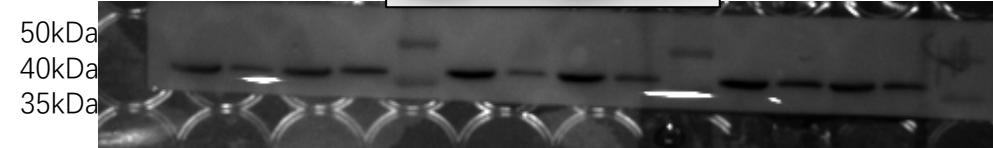
Lm3 p-AKT



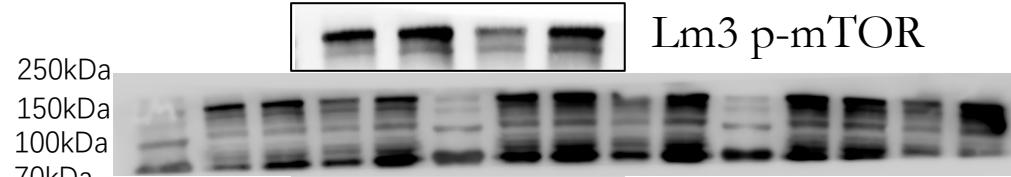
Lm3 AKT



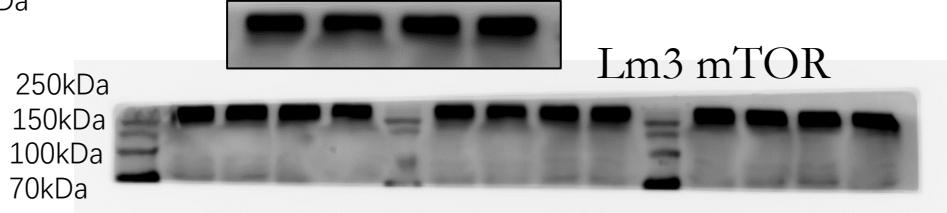
LM3 PTEN



Lm3 p-mTOR



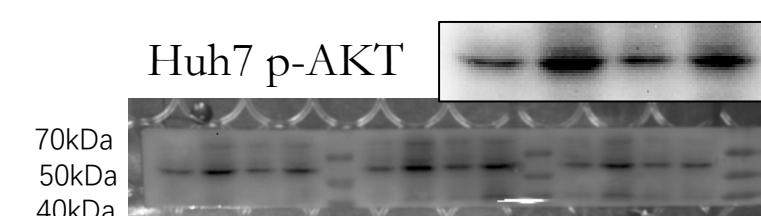
Lm3 mTOR



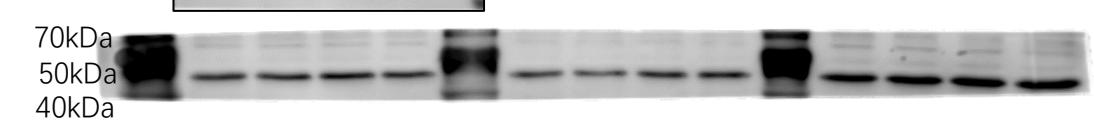
Lm3 β-actin



Huh7 p-AKT



huh7 AKT



huh7 PTEN



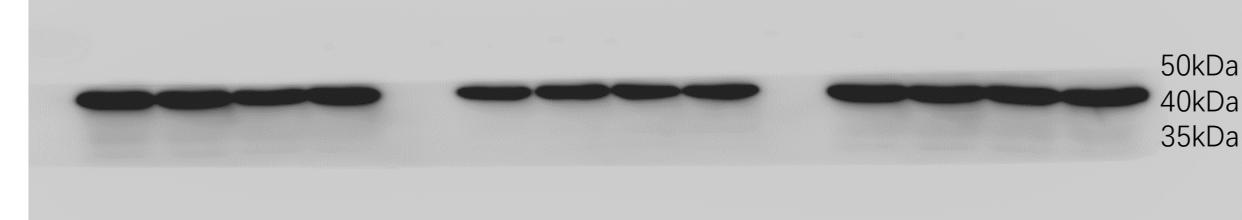
Huh7 p-mTOR



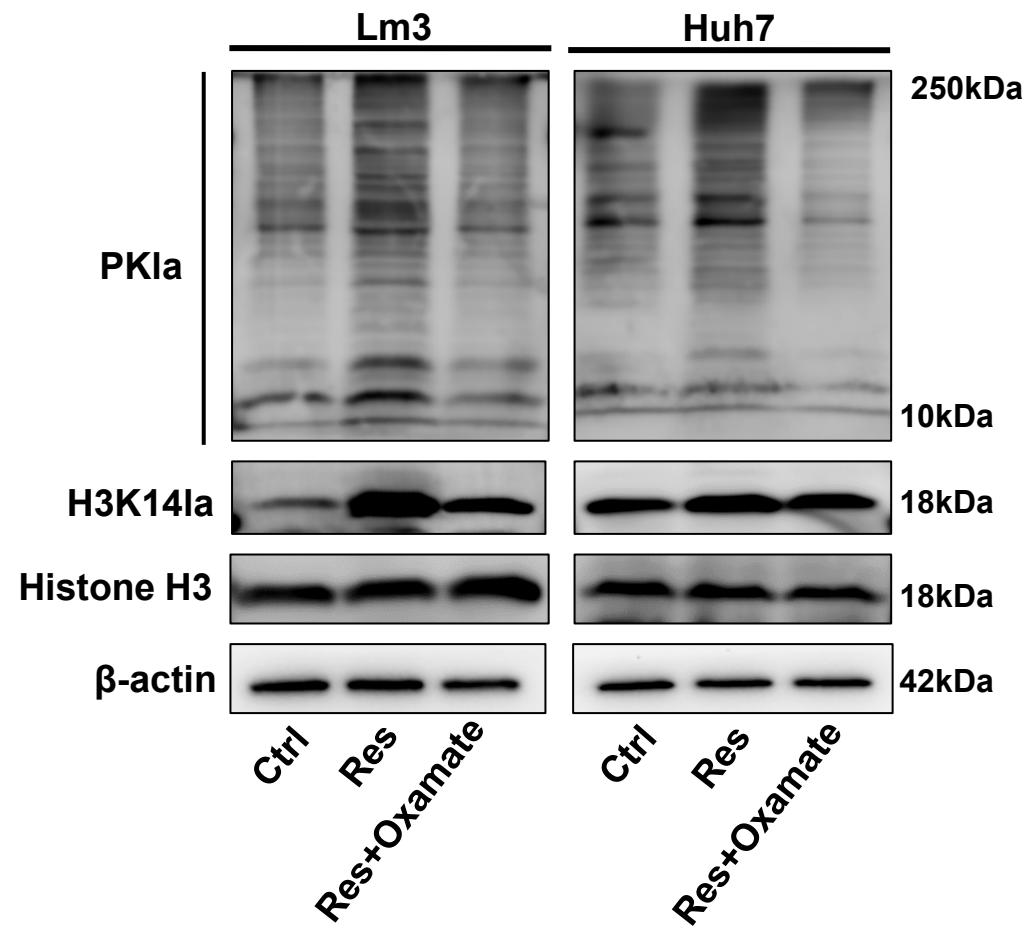
huh7 mTOR



Huh7 β-actin

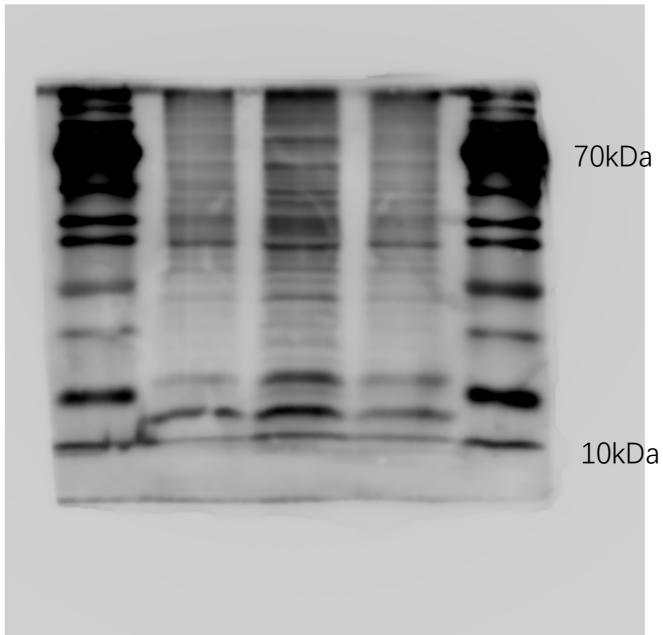


**Figure.6C**

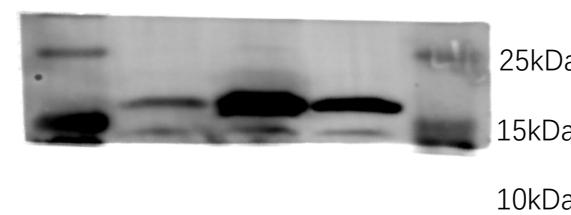


Lm3

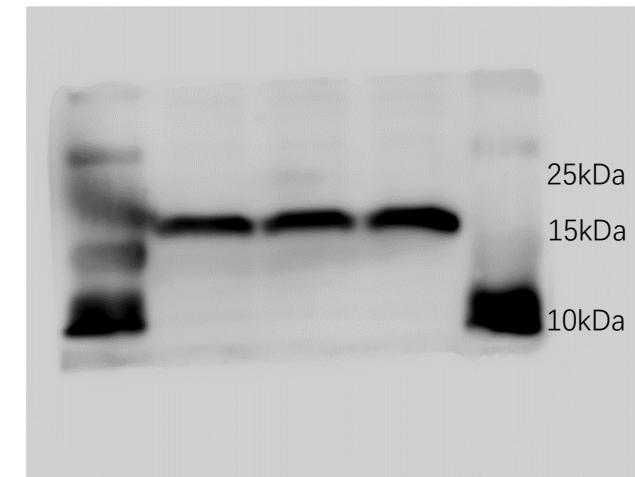
**Pkla 10-250kDa**



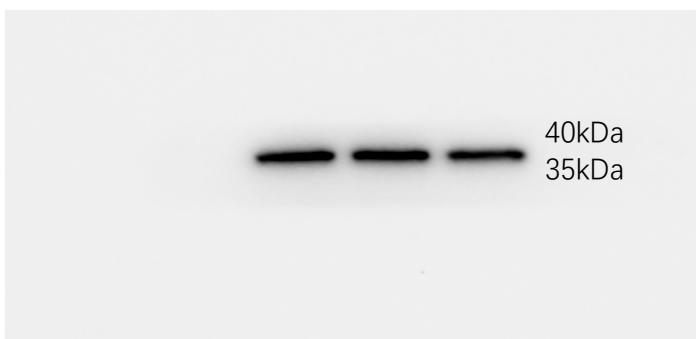
**H3K14la 18kDa**



**Histone H3 18kDa**

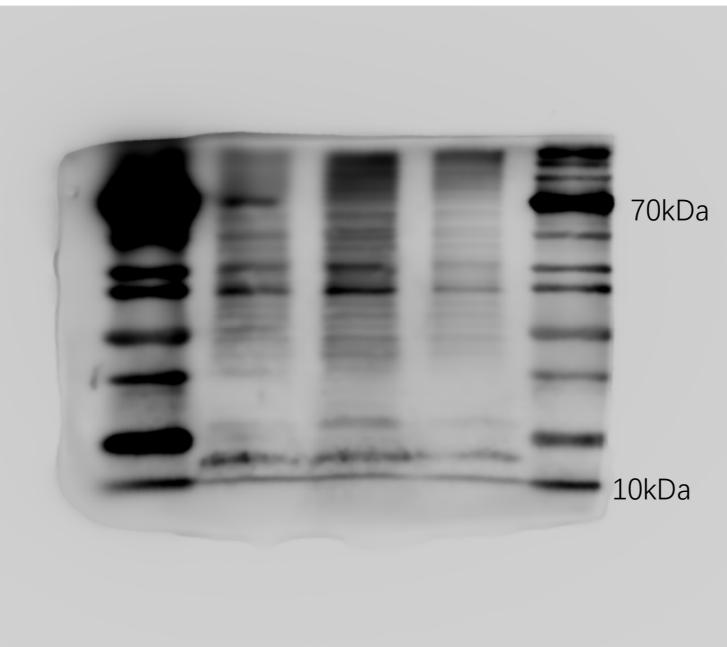


**$\beta$ -actin 42kDa**

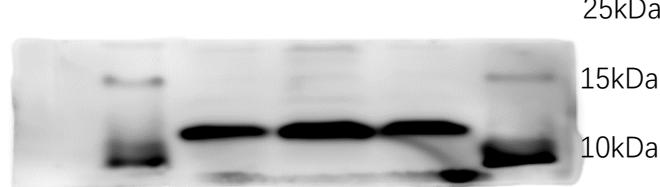


Lm3

**Pkla 10-250kDa**



**H3K14la 18kDa**



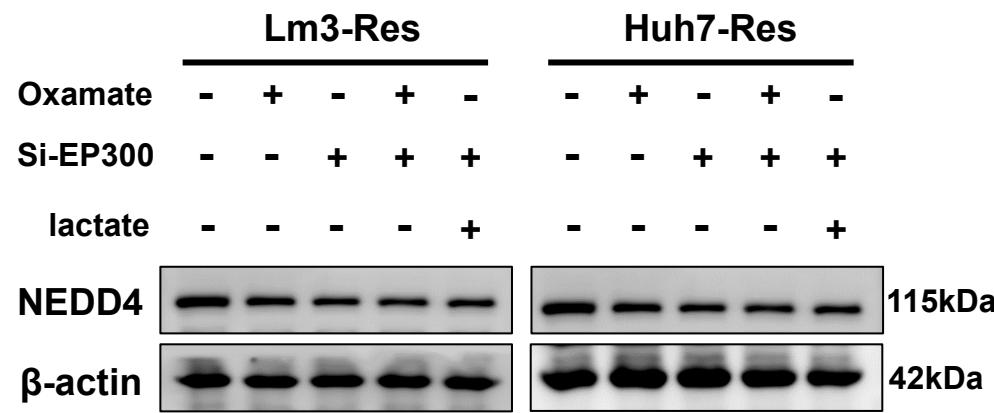
**Histone H3 18kDa**

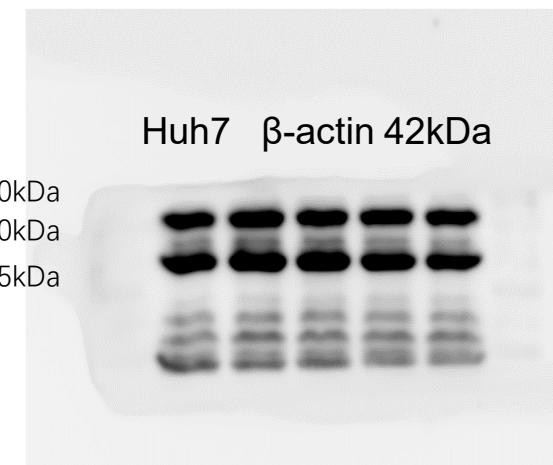
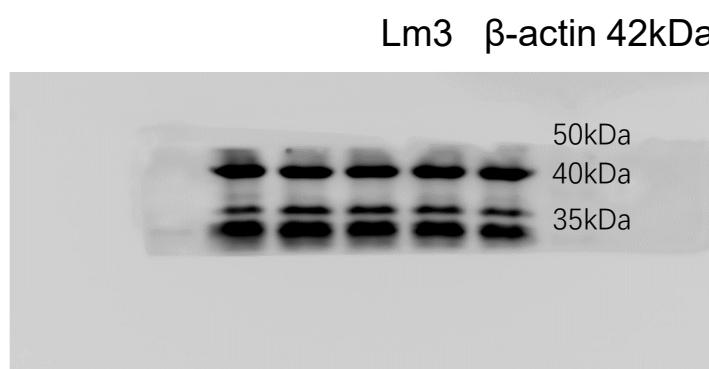
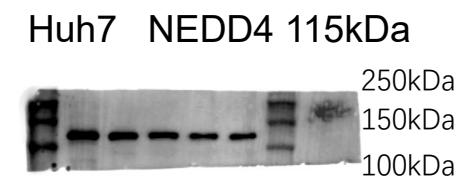
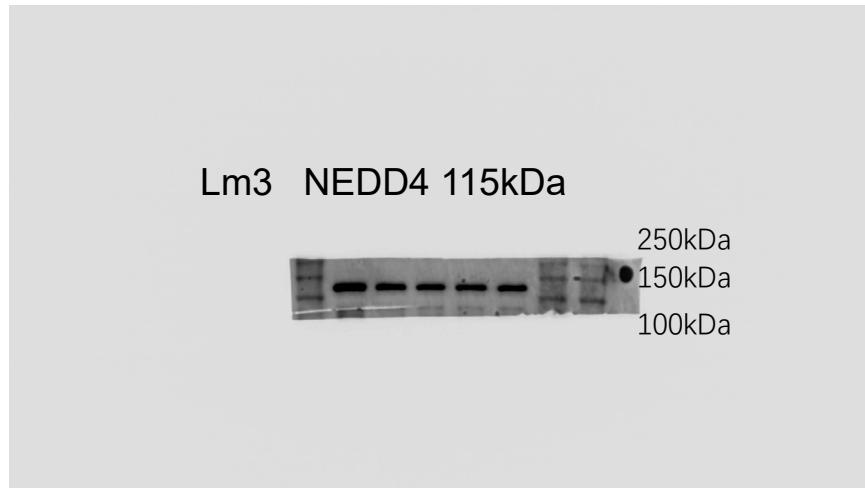


**$\beta$ -actin 42kDa**

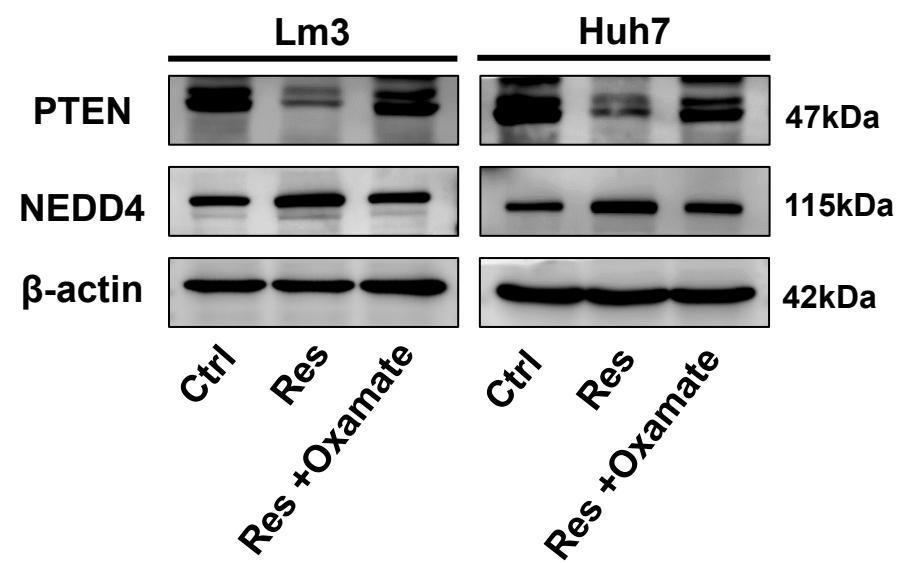


# Figure.6D

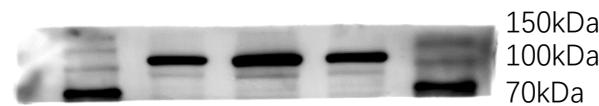




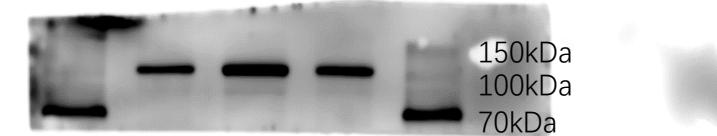
**Figure.6E**



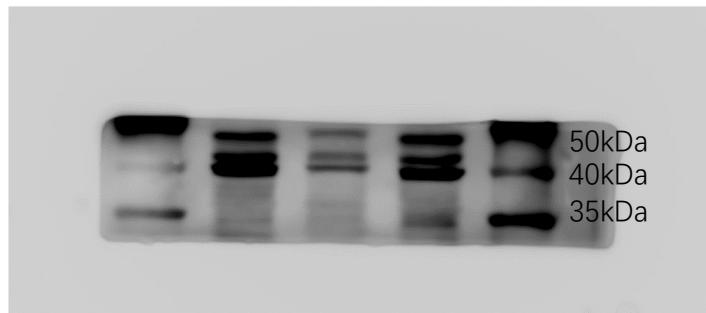
LM3 NEDD4



huh7 NEDD4



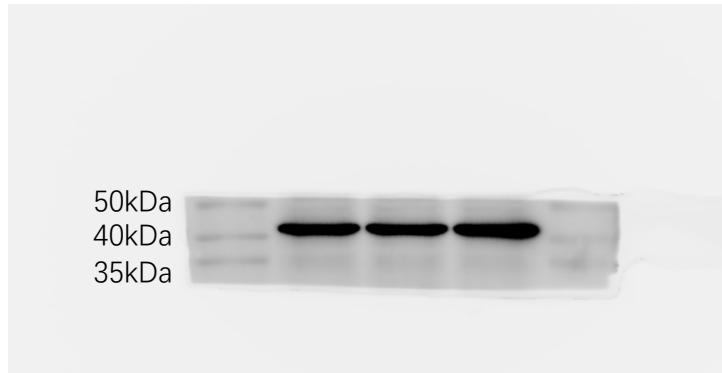
LM3 PTEN



Huh7 PTEN



LM3 ACTB



Huh7 ACTB

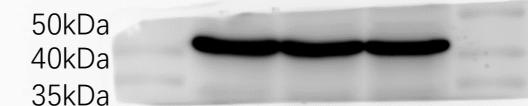
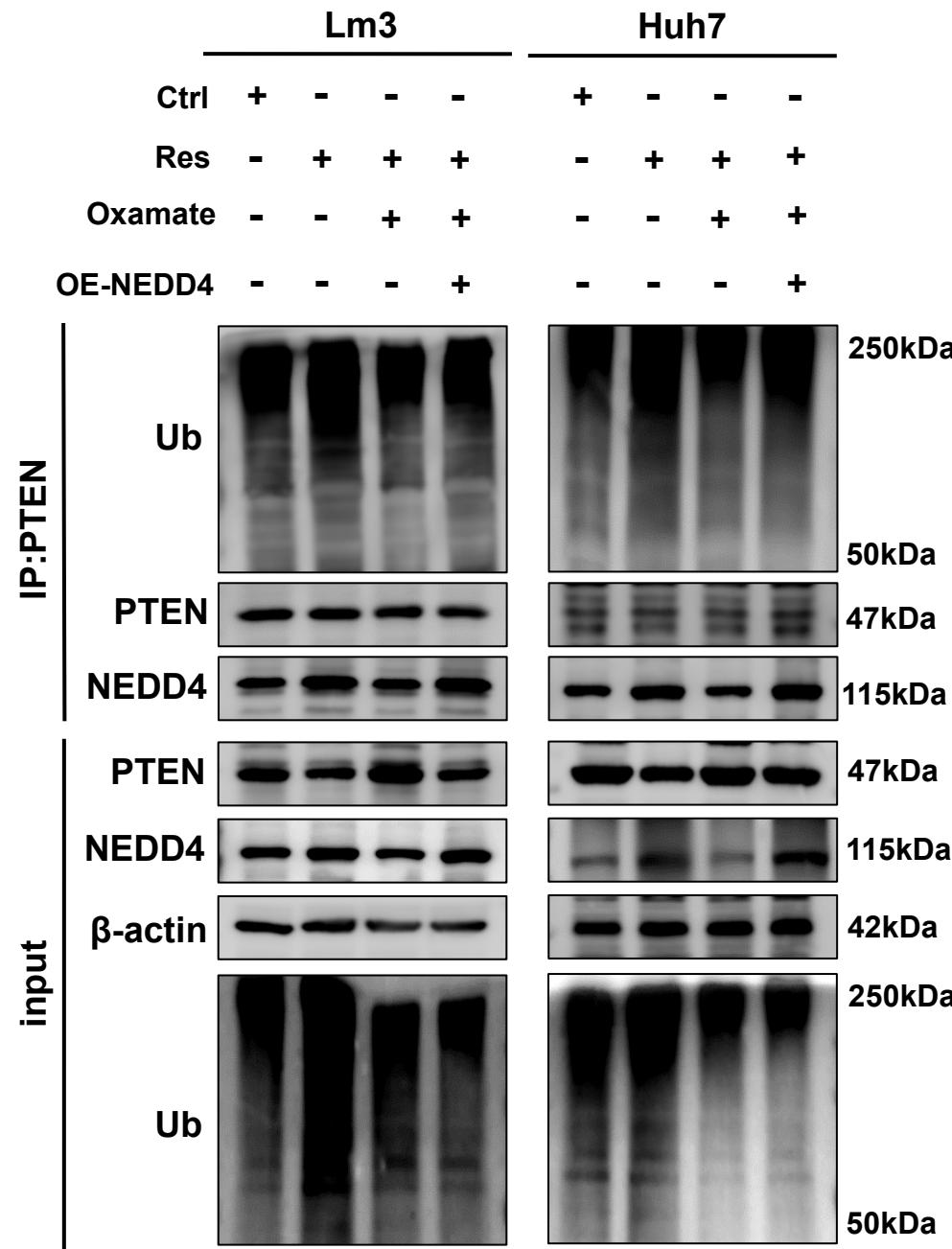
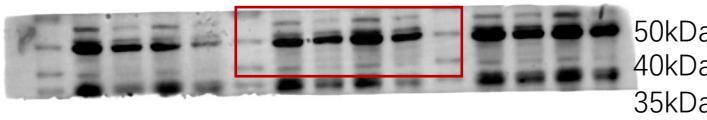


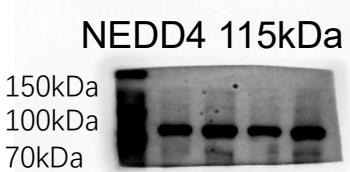
Figure.6H



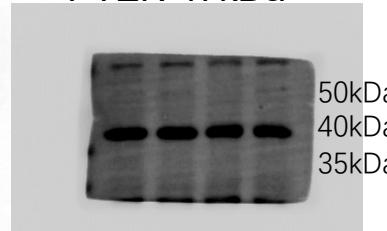
PTEN 47kDa



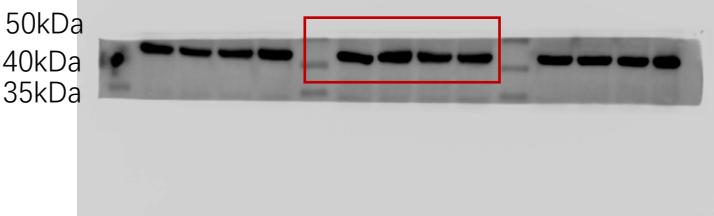
NEDD4 115kDa



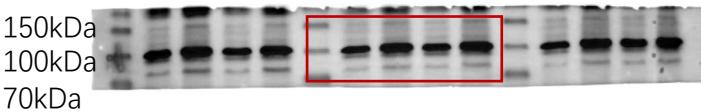
PTEN 47kDa



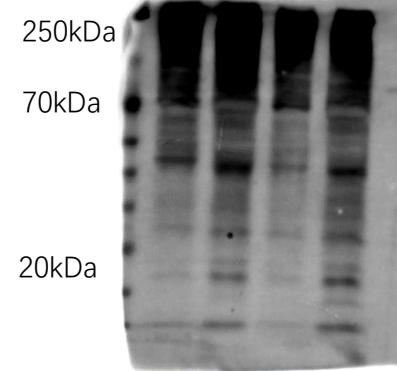
$\beta$ -actin 42kDa



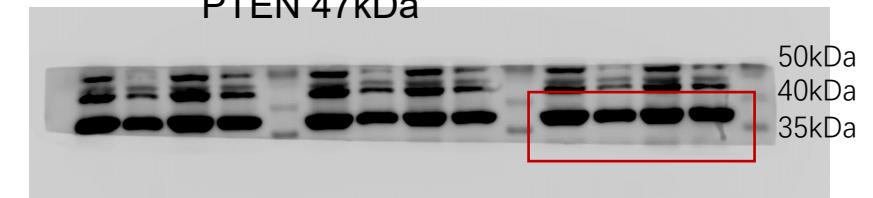
NEDD4 115kDa



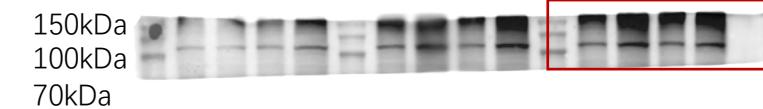
Ub



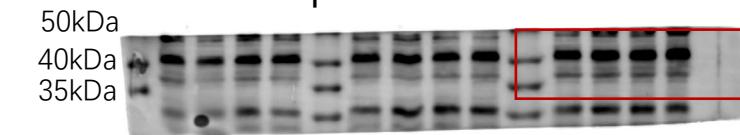
PTEN 47kDa



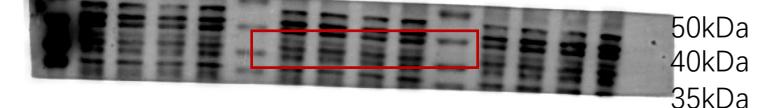
NEDD4 115kDa



$\beta$ -actin 42kDa



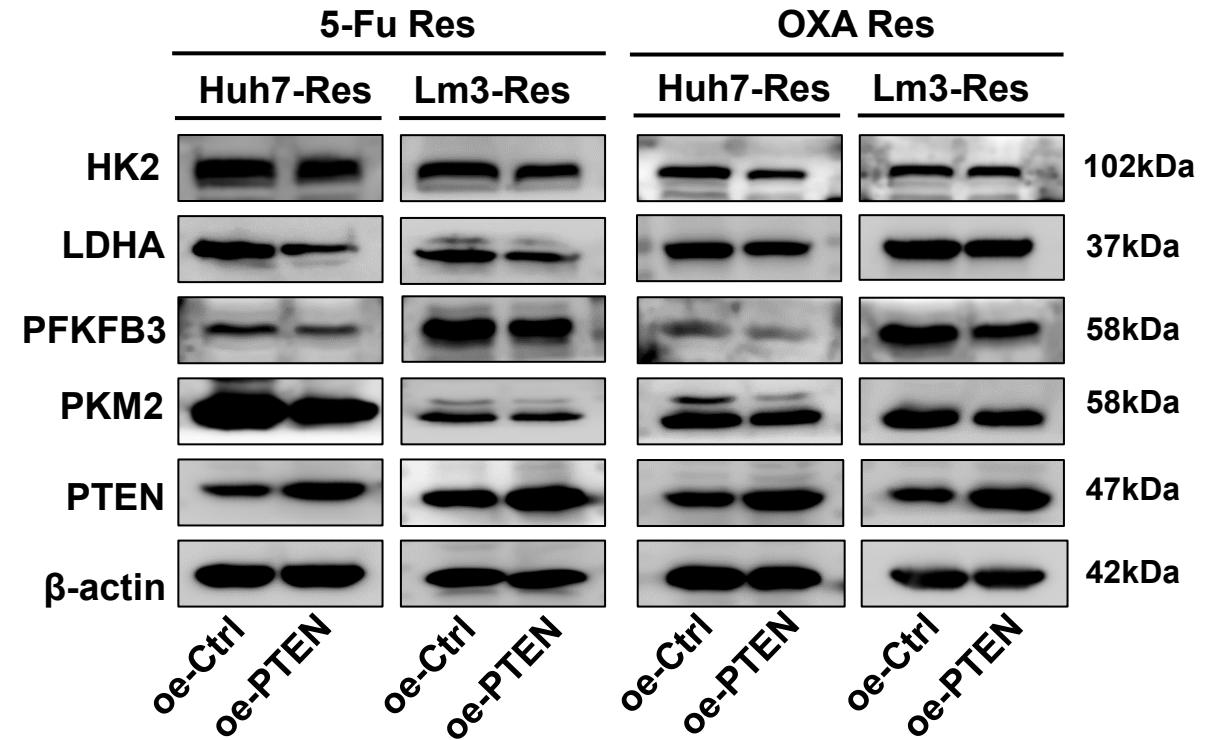
PTEN 47kDa

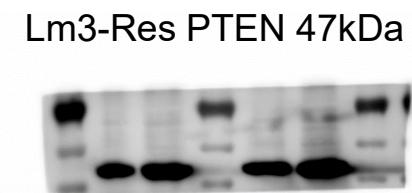
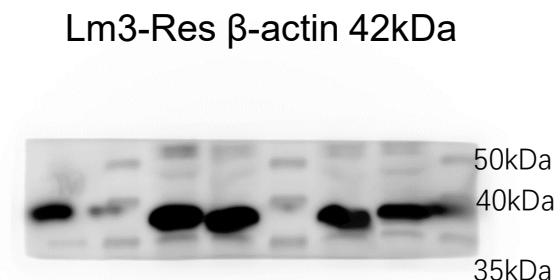
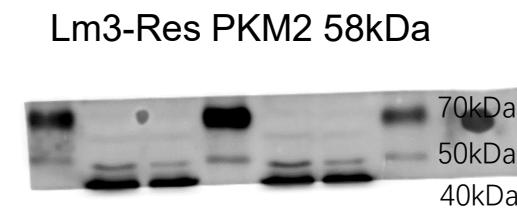
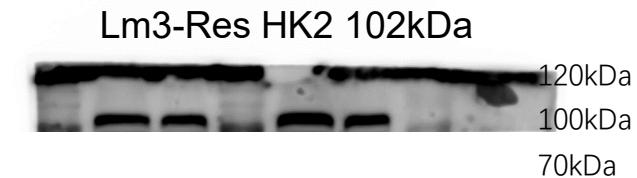
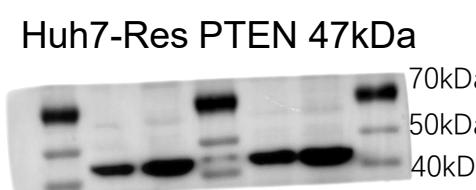
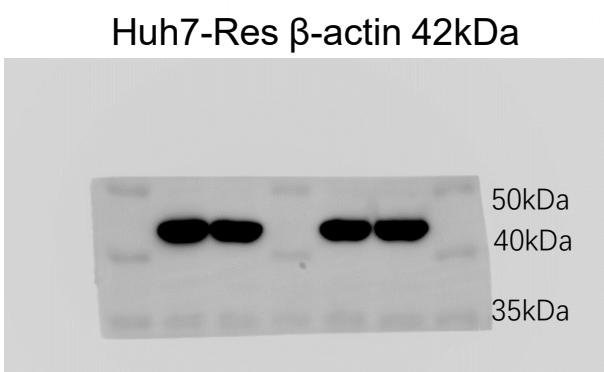
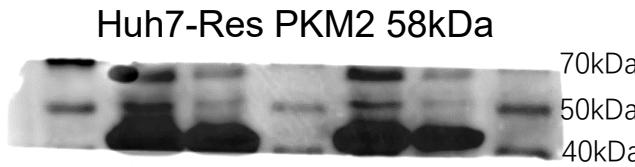
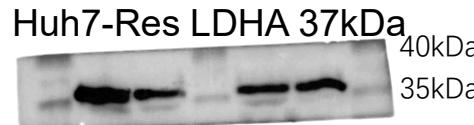


NEDD4 115kDa



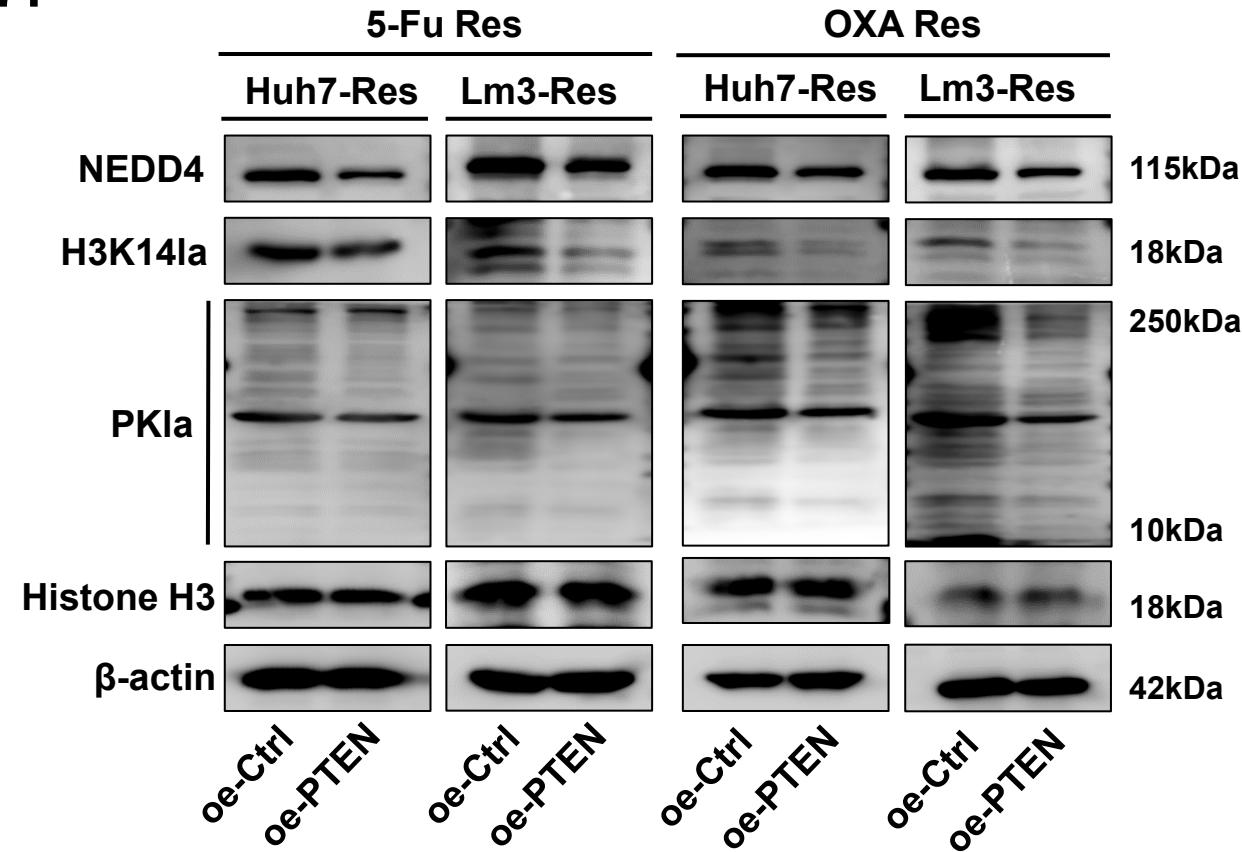
**Figure.7E**

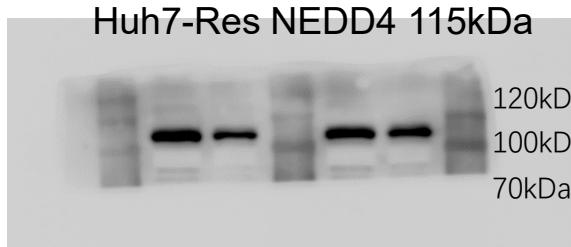




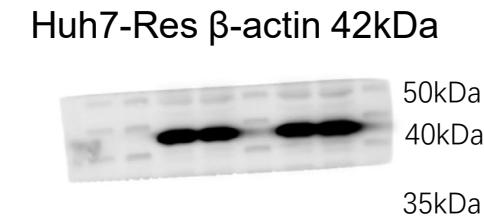
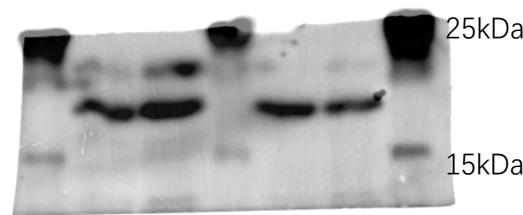


**Figure.7F**

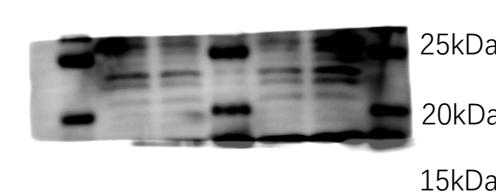




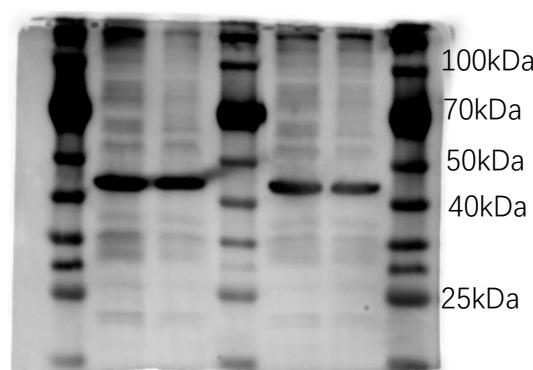
**Huh7-Res H3K14la 18kDa**



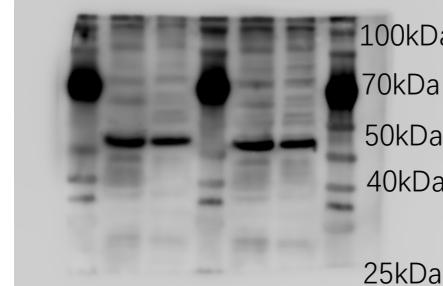
**Lm3-Res H3K14la 18kDa**



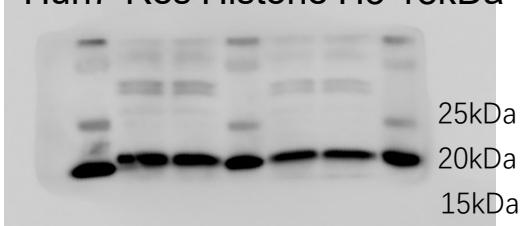
**Huh7-Res Pkla**



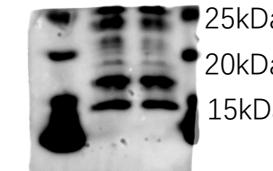
**Lm3-Res Pkla**



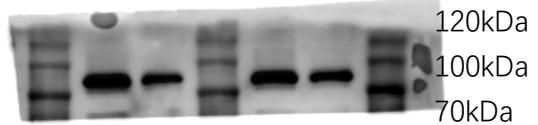
**Huh7-Res Histone H3 18kDa**



**Lm3-Res Histone H3 18kDa**



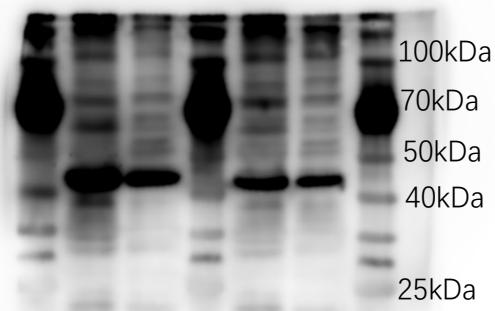
Huh7-Res NEDD4 115kDa



Huh7-Res H3K14la 18kDa



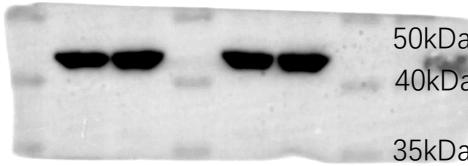
Huh7-Res Pkla



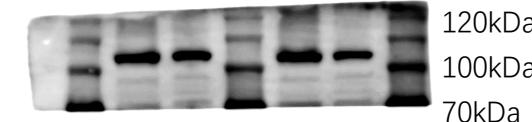
Huh7-Res Histone H3 18kDa



Huh7-Res  $\beta$ -actin 42kDa



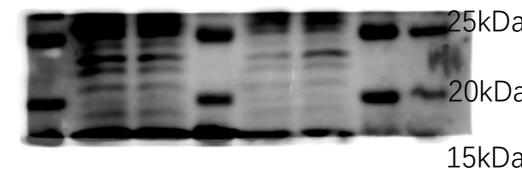
Lm3-Res NEDD4 115kDa



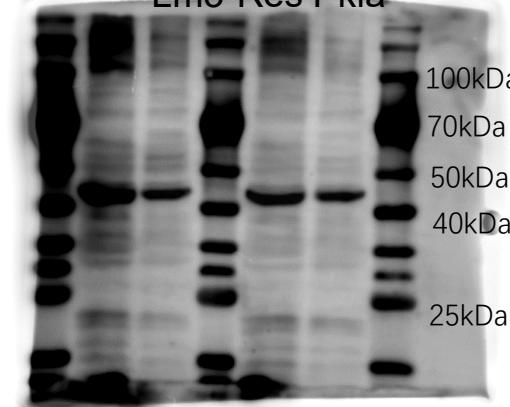
Lm3-Res  $\beta$ -actin 42kDa



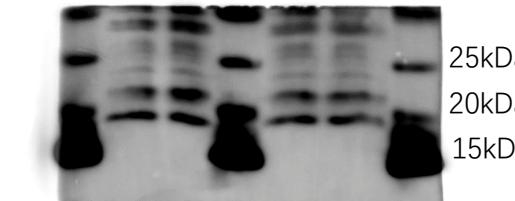
Lm3-Res H3K14la 18kDa



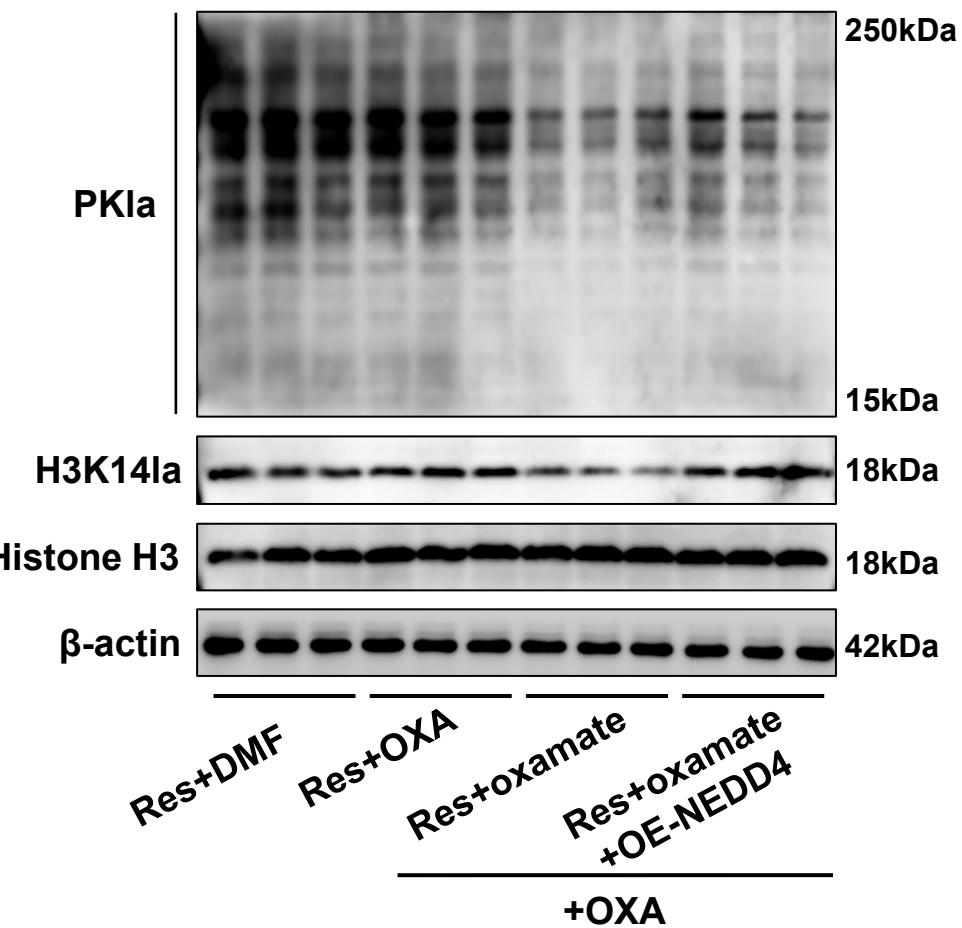
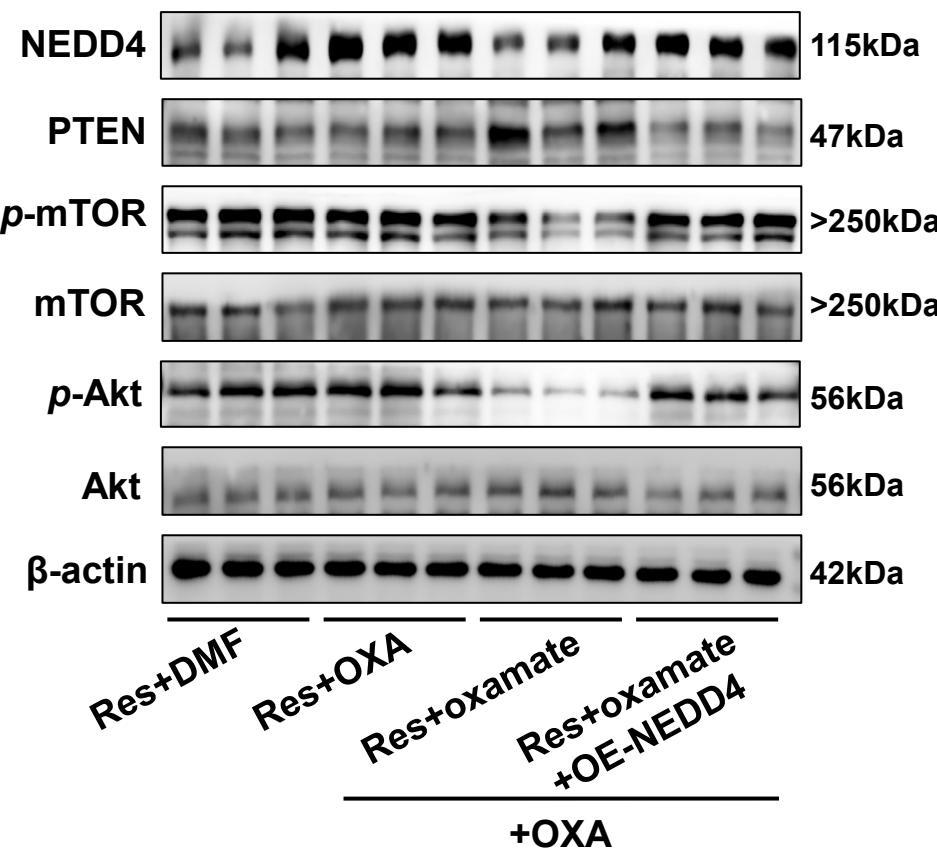
Lm3-Res Pkla



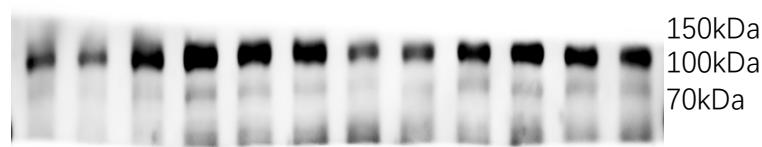
Lm3-Res Histone H3 18kDa



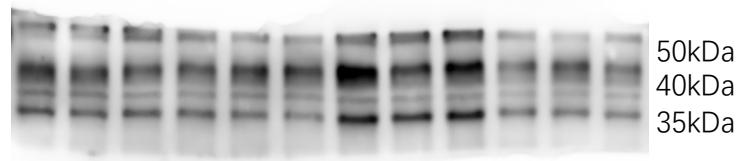
# Figure.8D-G



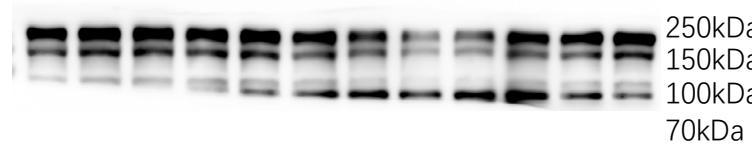
NEDD4 115kDa



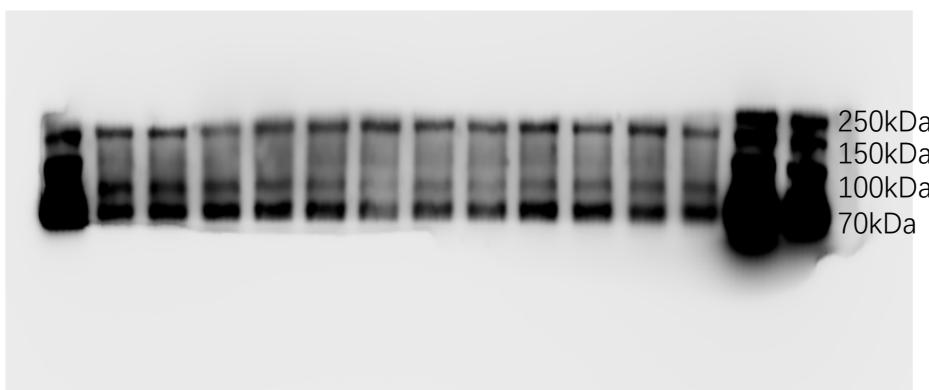
PTEN 47kDa



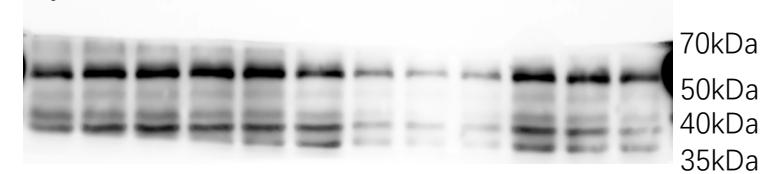
*p*-mTOR 250kDa



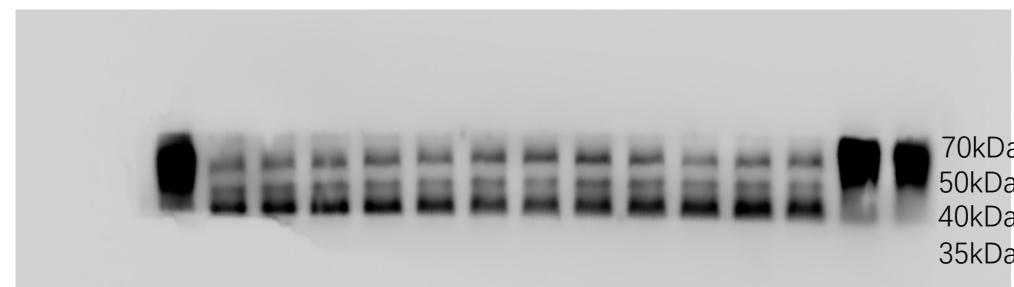
mTOR 250kDa



*p*-Akt 56kDa



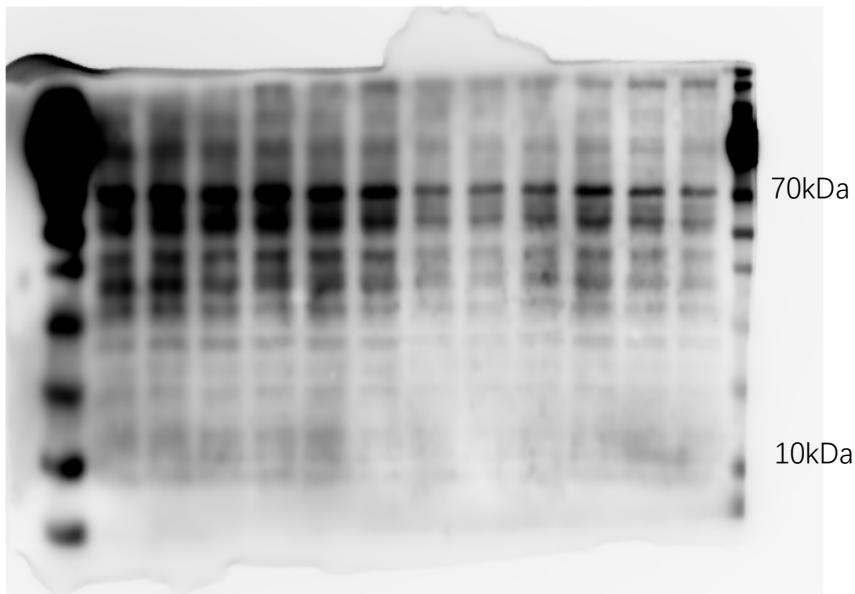
Akt 56kDa



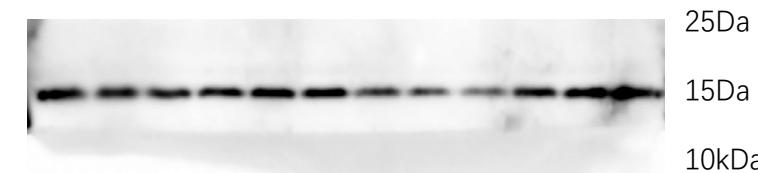
$\beta$ -actin 42kDa



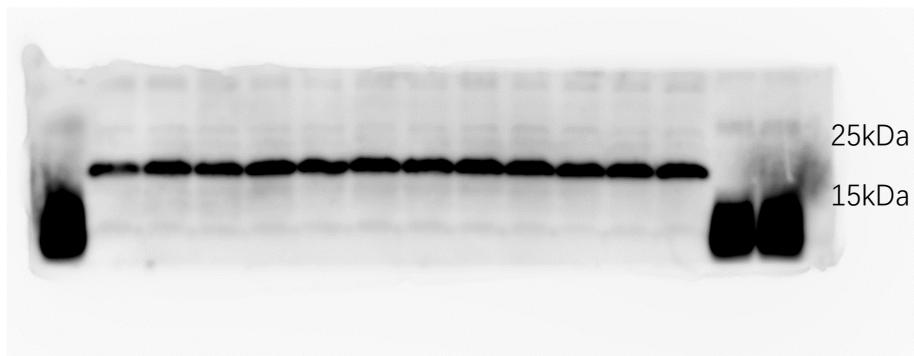
**Pkla 10-250kDa**



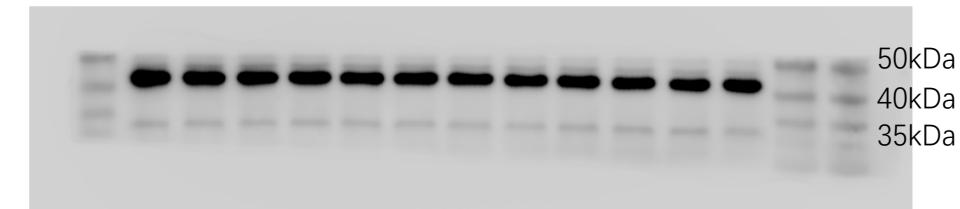
**H3K14la 18kDa**



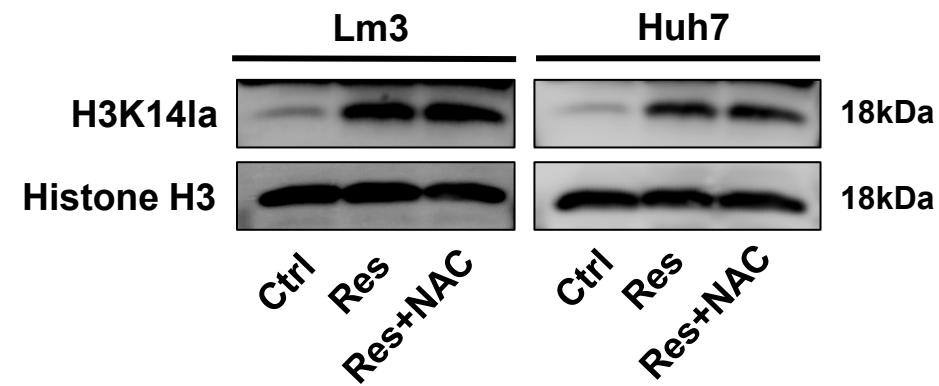
**Histone H3 18kDa**



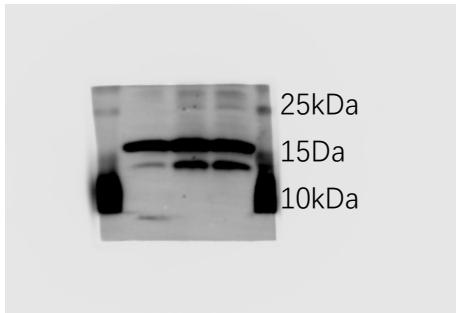
**$\beta$ -actin 42kDa**



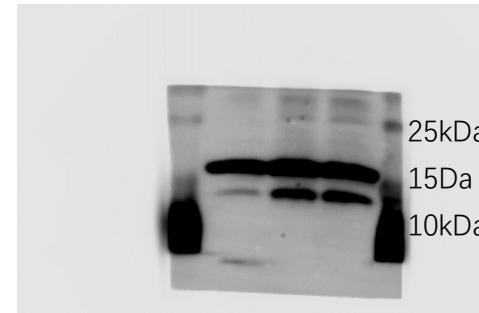
# S1.D



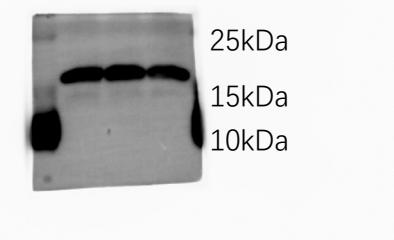
**H3K14la 18kDa**



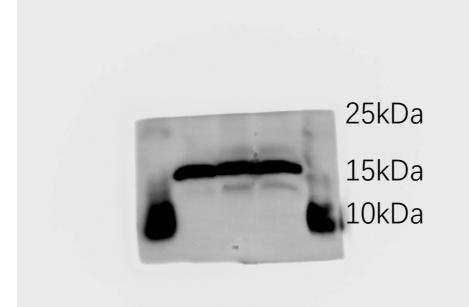
**H3K14la 18kDa**



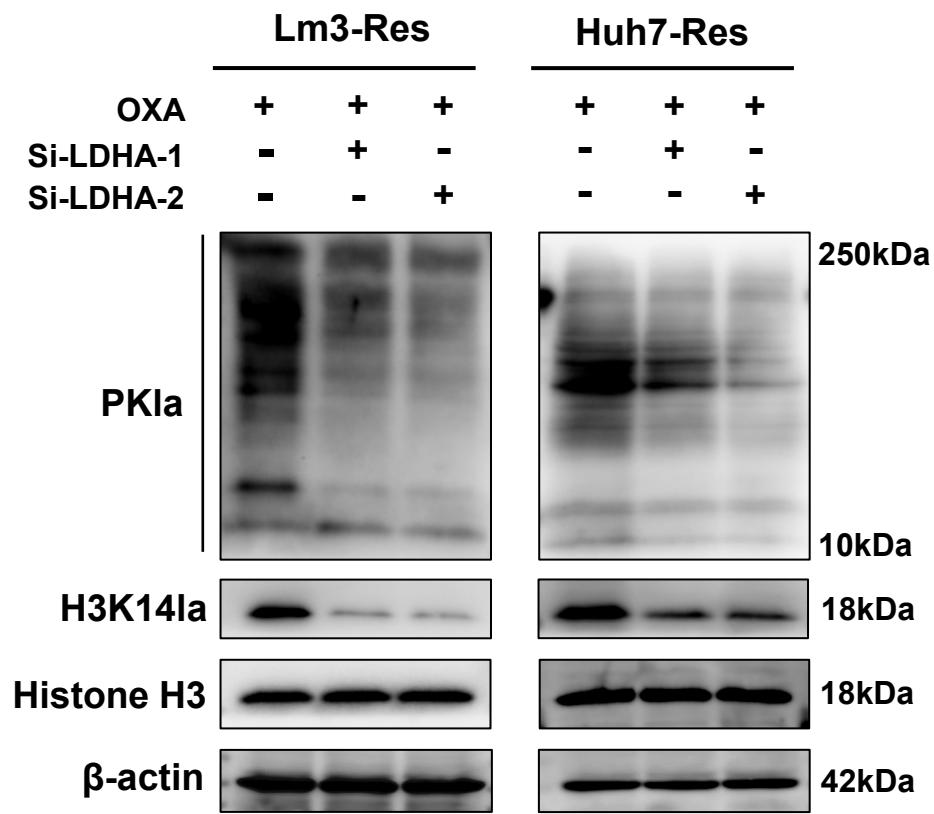
**Histone H3 18kDa**



**Histone H3 18kDa**



## S2.C

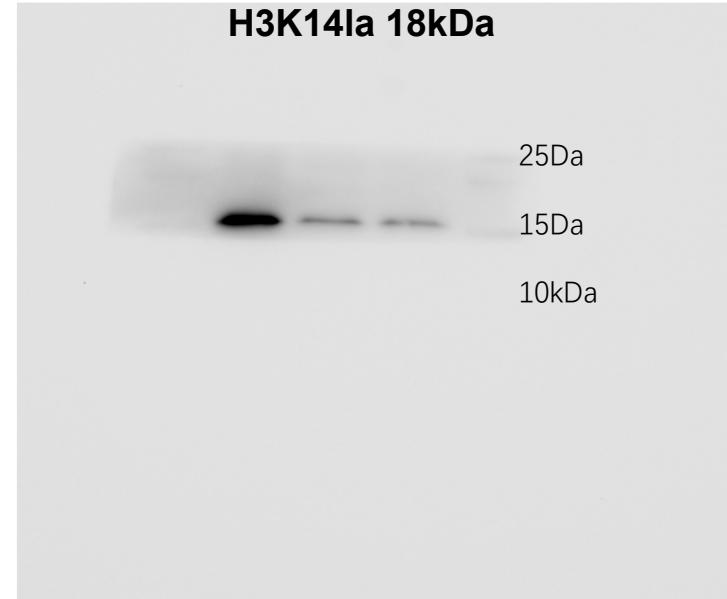


Lm3-Res

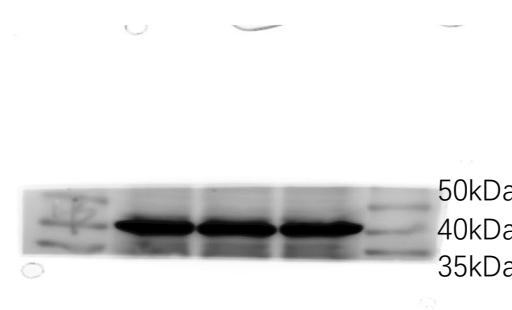
Pkla 10-250kDa



H3K14la 18kDa



$\beta$ -actin 42kDa



Lm3-Res

Pkla 10-250kDa

70kDa

10kDa

H3K14la 18kDa

25Da

15kDa

10kDa

Histone H3 18kDa

25kDa

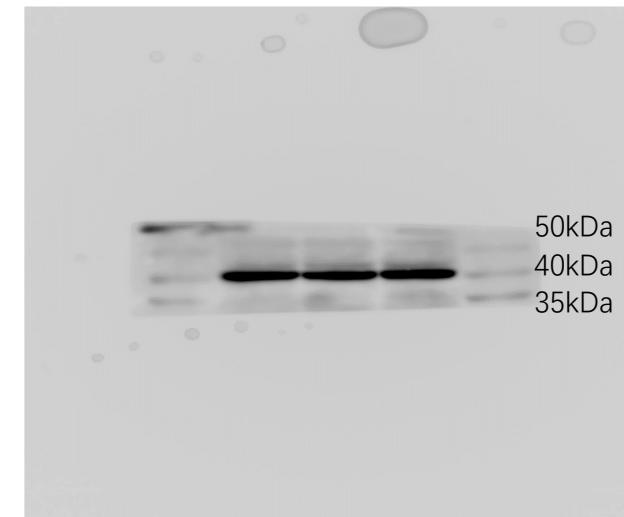
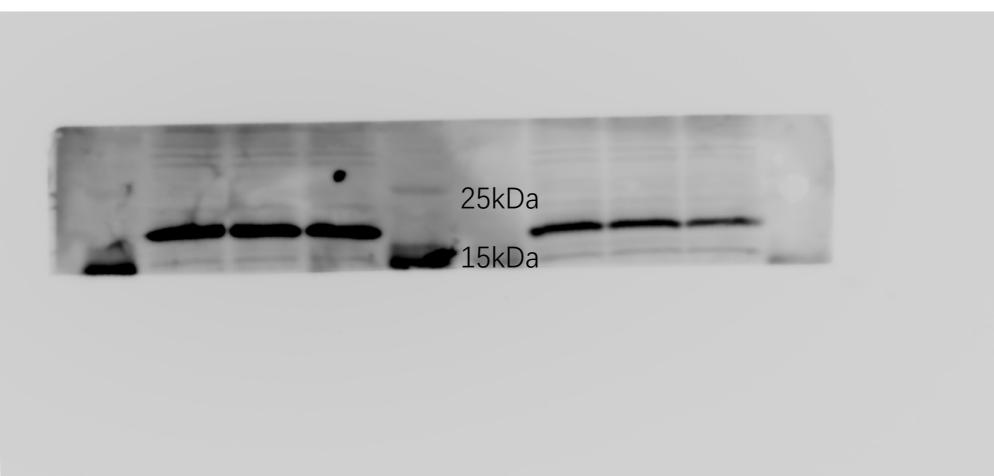
15kDa

$\beta$ -actin 42kDa

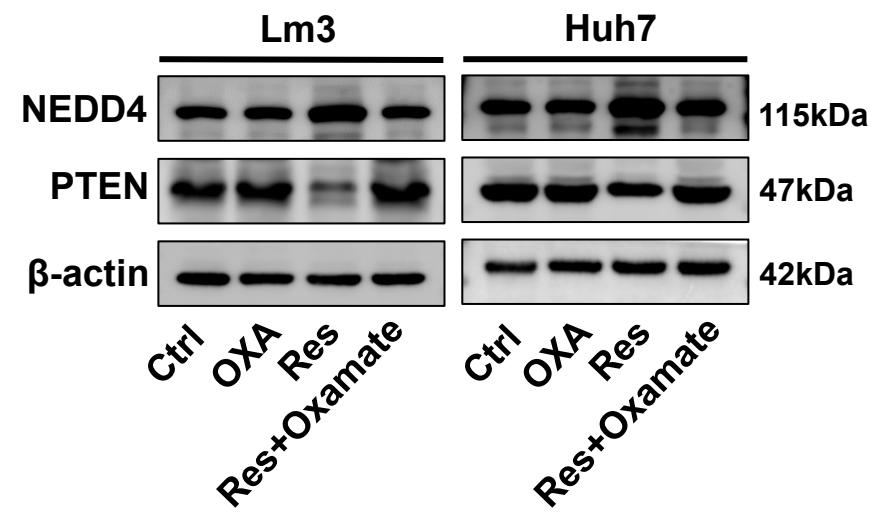
50kDa

40kDa

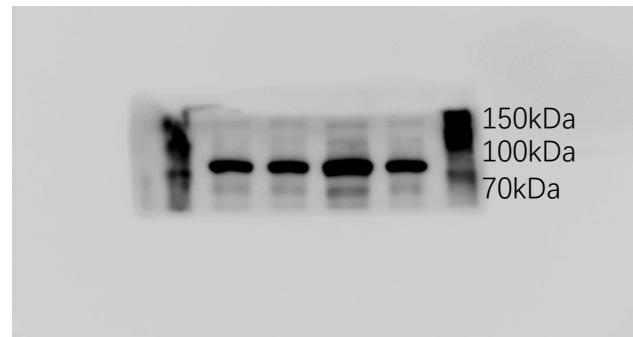
35kDa



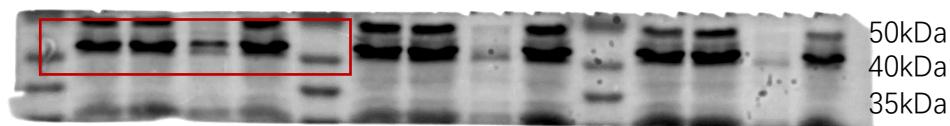
### S3.C



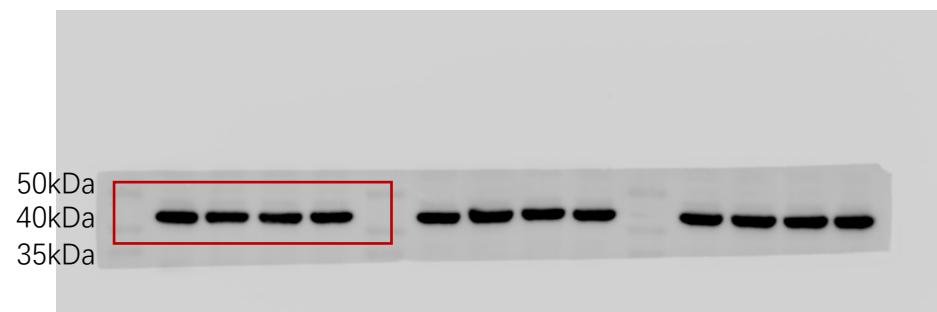
LM3 NEDD4



LM3 PTEN



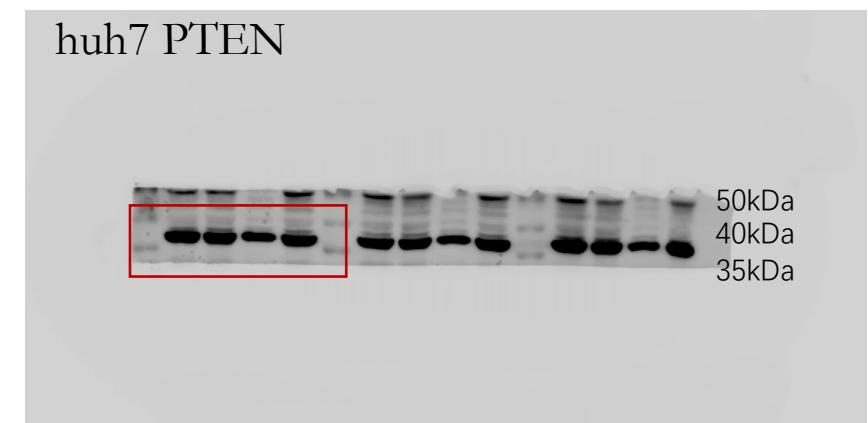
LM3 ACTB



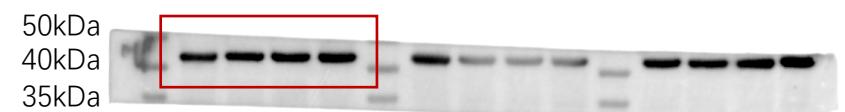
huh7 NEDD4



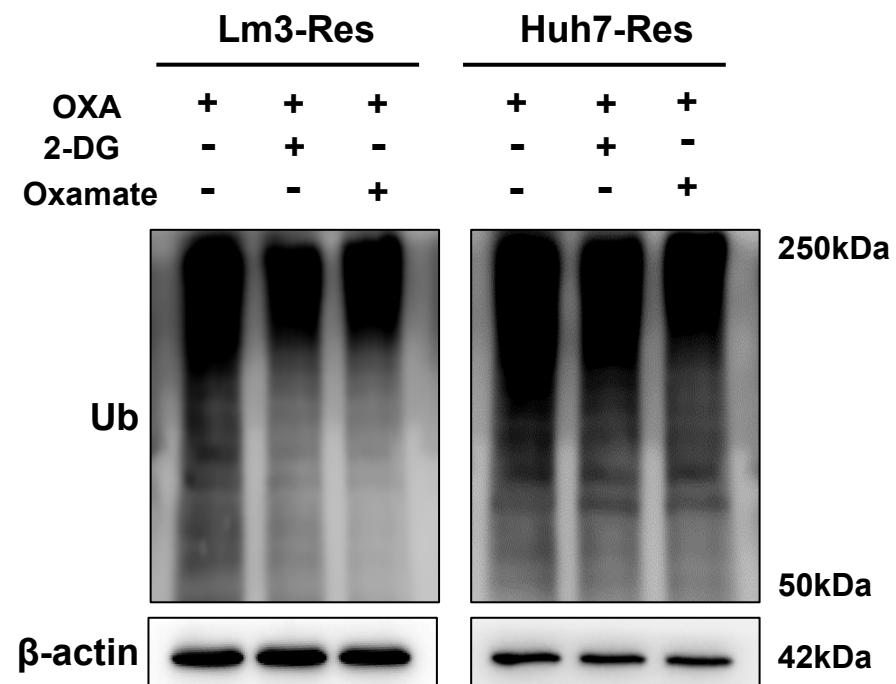
huh7 PTEN

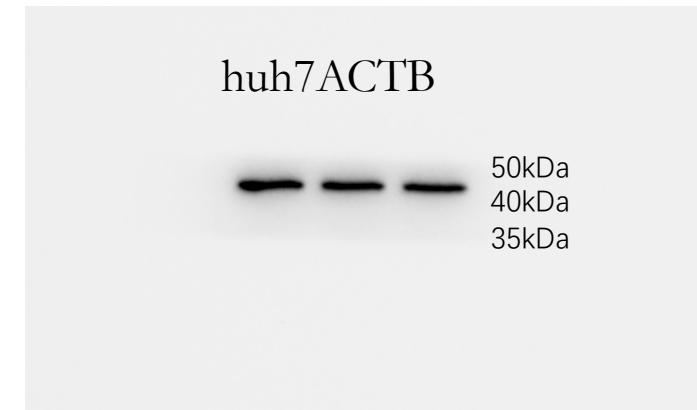
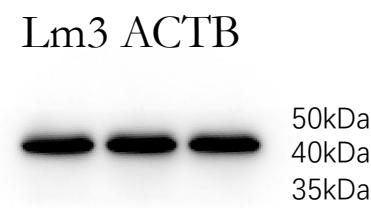
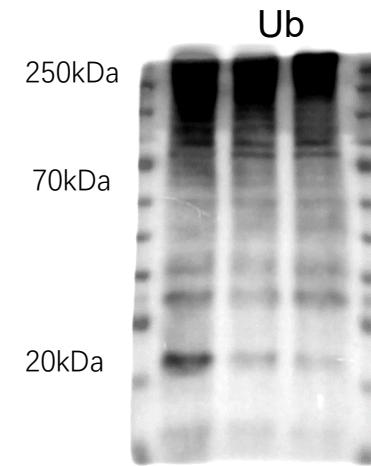
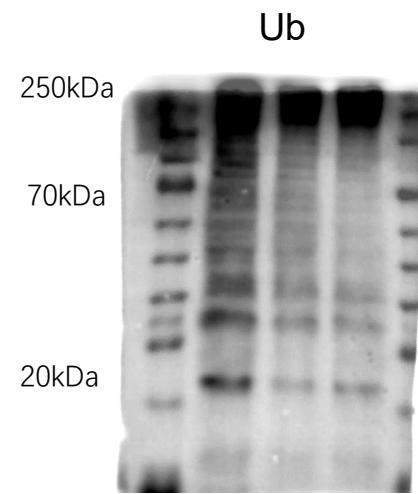


huh7 ACTB

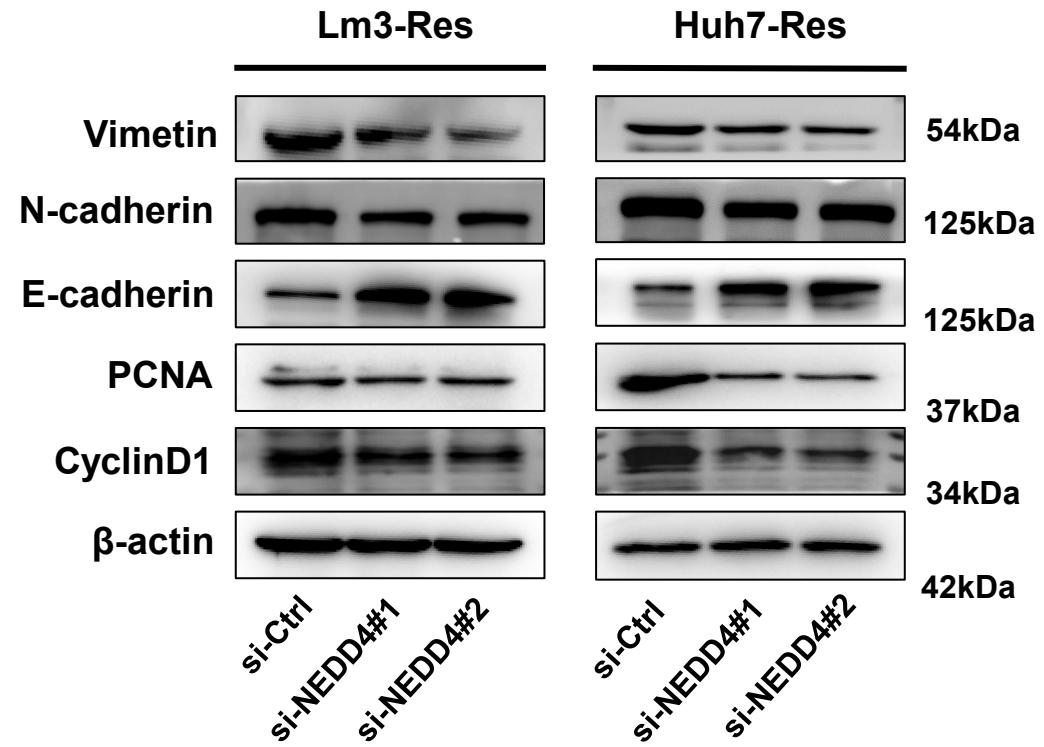


### S3.D





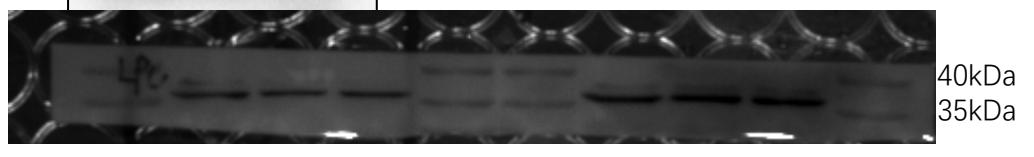
### S3.F



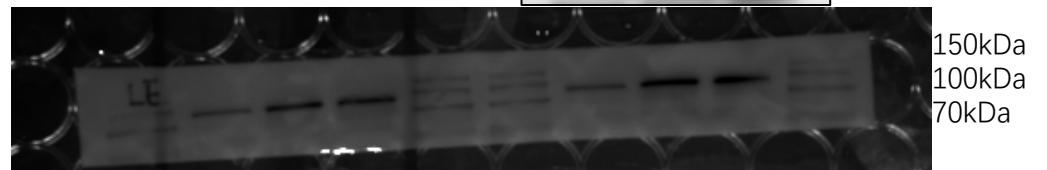
Lm3 N-cadherin



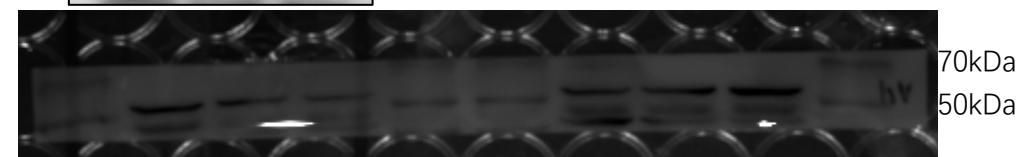
Lm3 PCNA



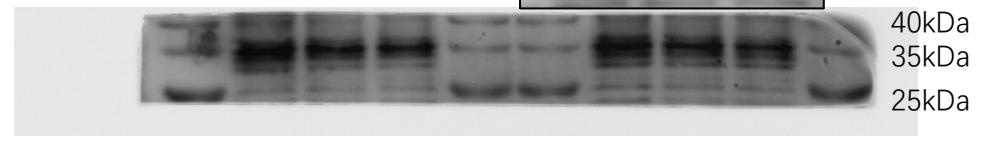
Lm3 E-CA



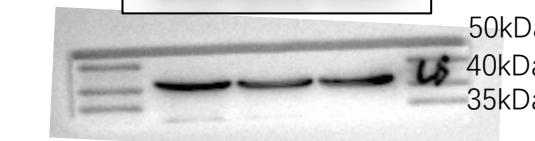
Lm3 Vimentin



Lm3 CYD



Lm3 ACTB



Huh7 E-cadherin



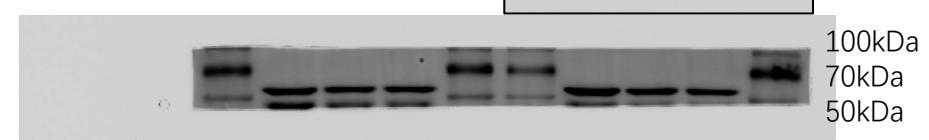
Huh7 N-cadherin



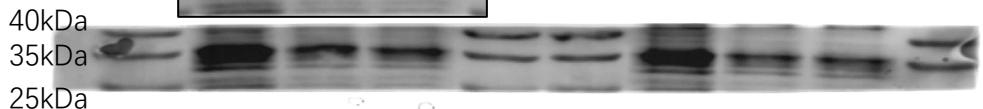
Huh7 PCNA



huh7 Vimentin



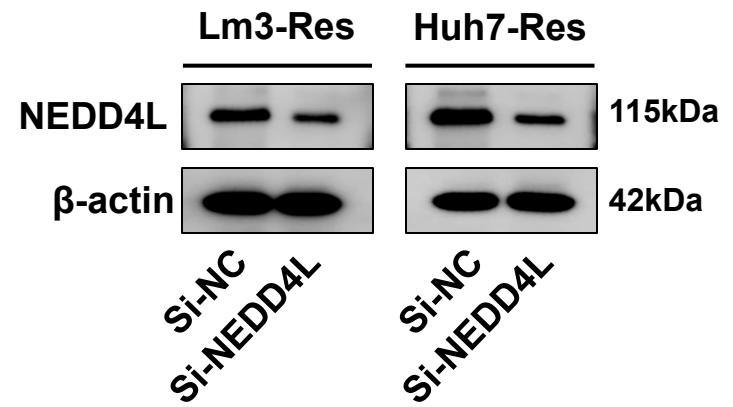
huh7 CYD



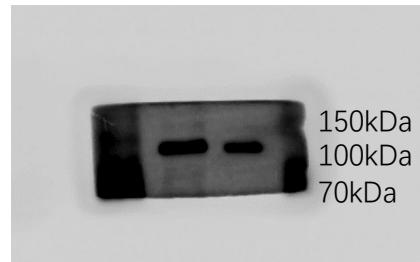
Huh7 ACTB



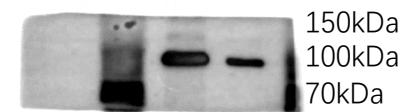
## S5.A



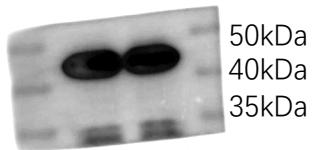
NEDD4L 112kDa



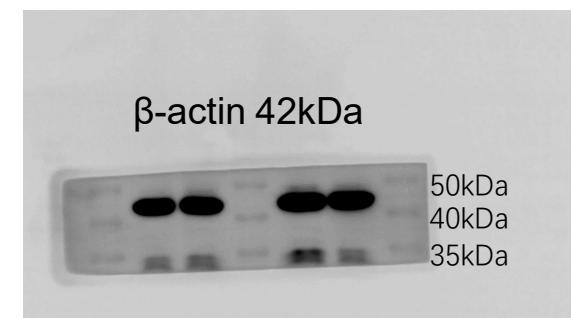
NEDD4L 112kDa



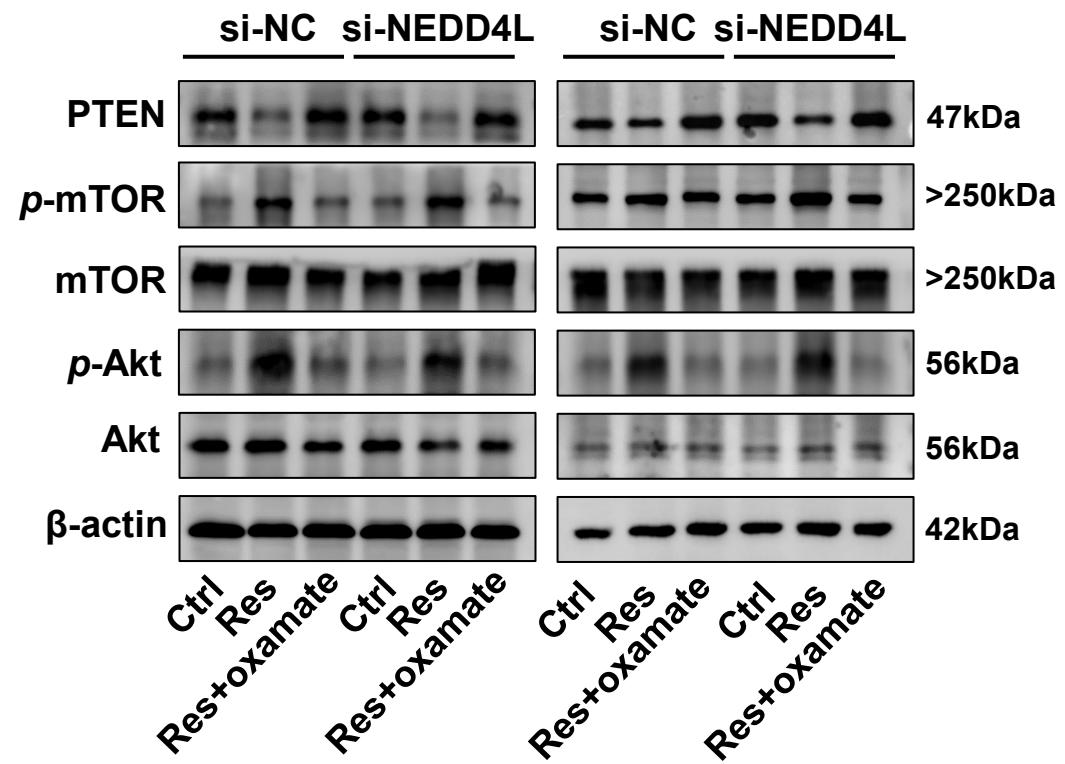
$\beta$ -actin 42kDa



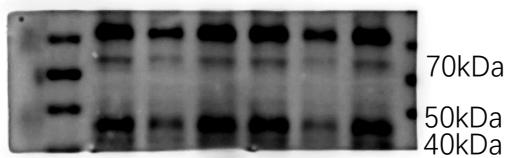
$\beta$ -actin 42kDa



## S5.B



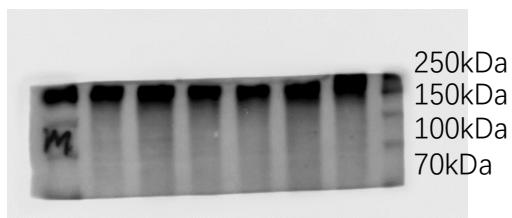
PTEN 47kDa



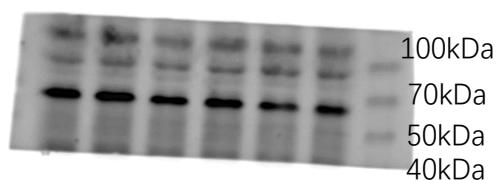
P-mTOR 250kDa



mTOR 250kDa



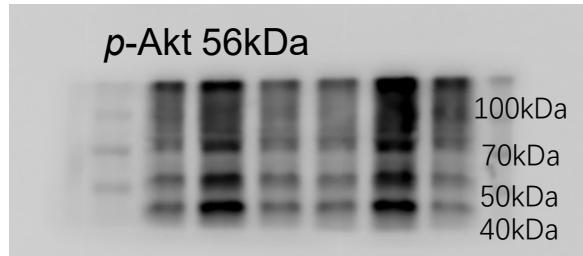
Akt 56kDa



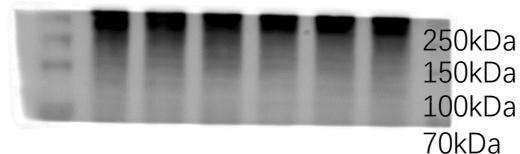
$\beta$ -actin 42kDa



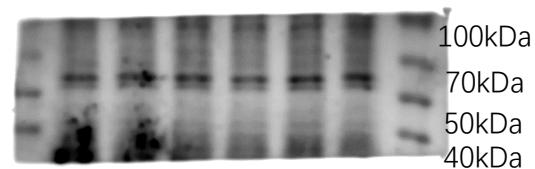
*p*-Akt 56kDa



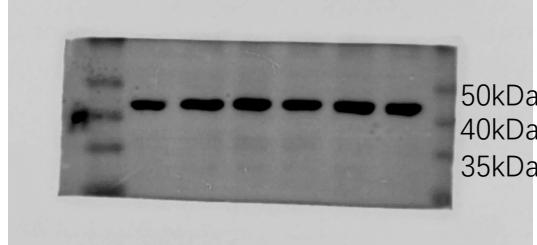
mTOR 250kDa



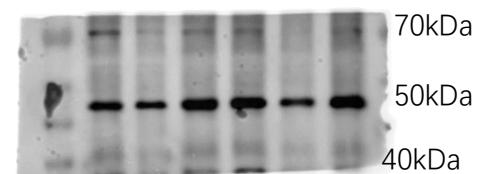
Akt 56kDa



$\beta$ -actin 42kDa



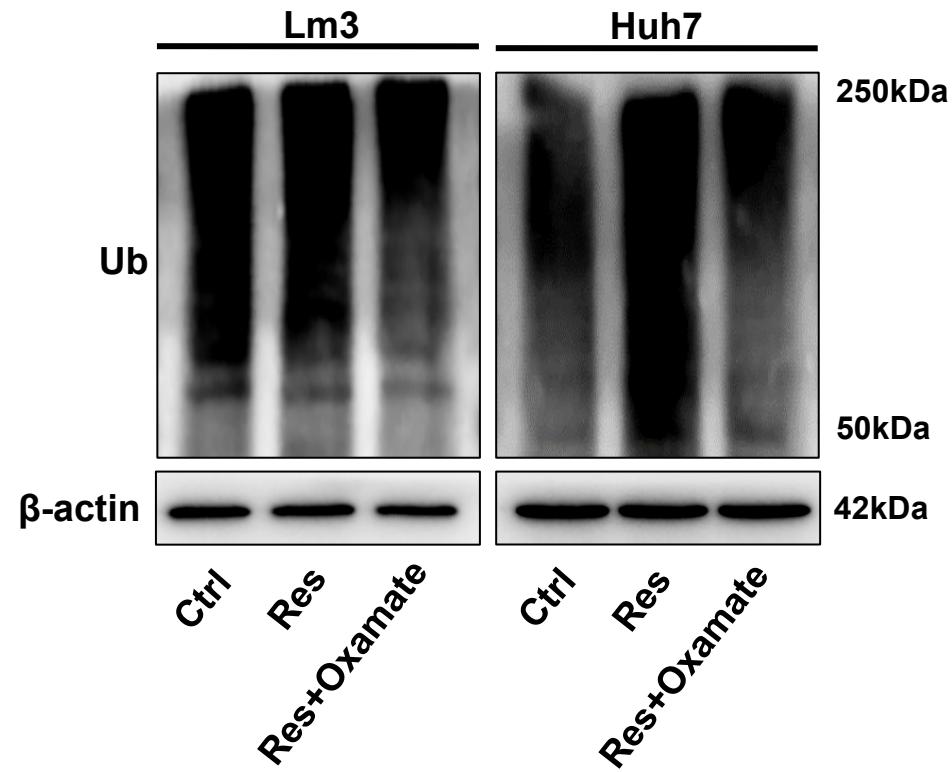
PTEN 47kDa

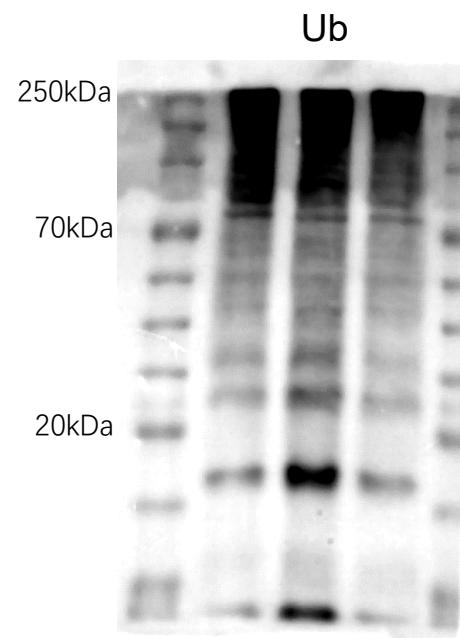
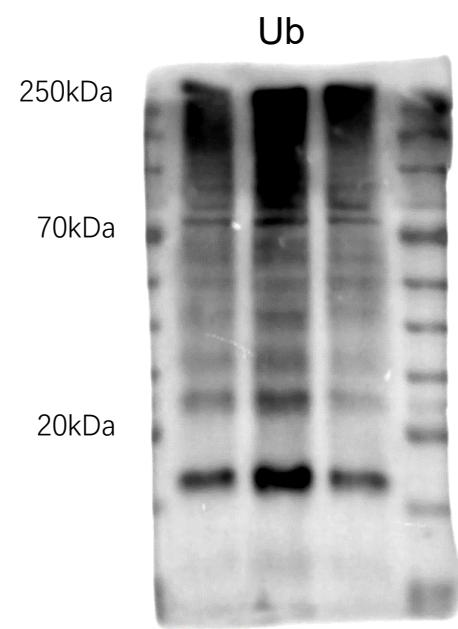
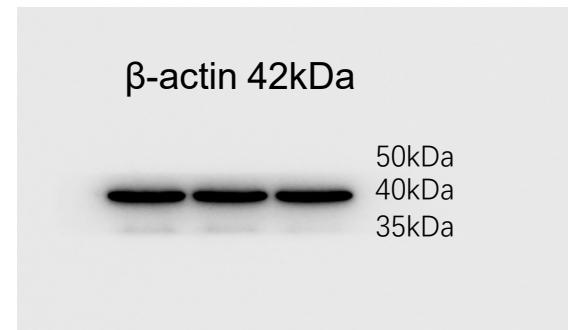


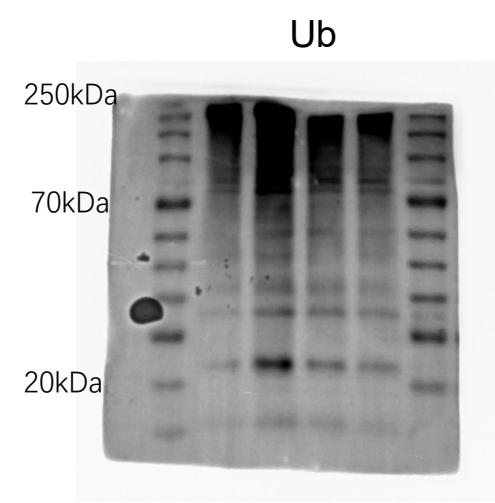
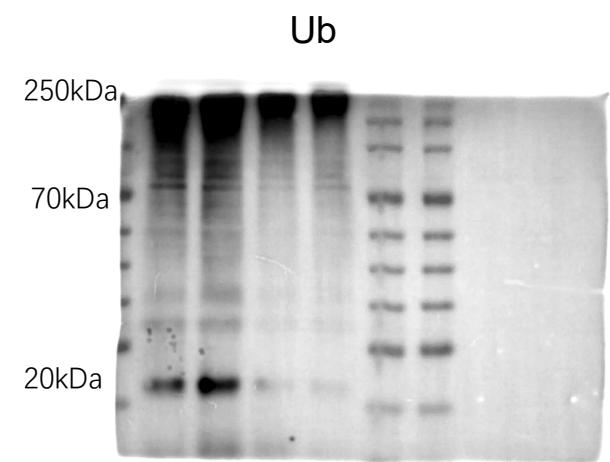
P-mTOR 250kDa



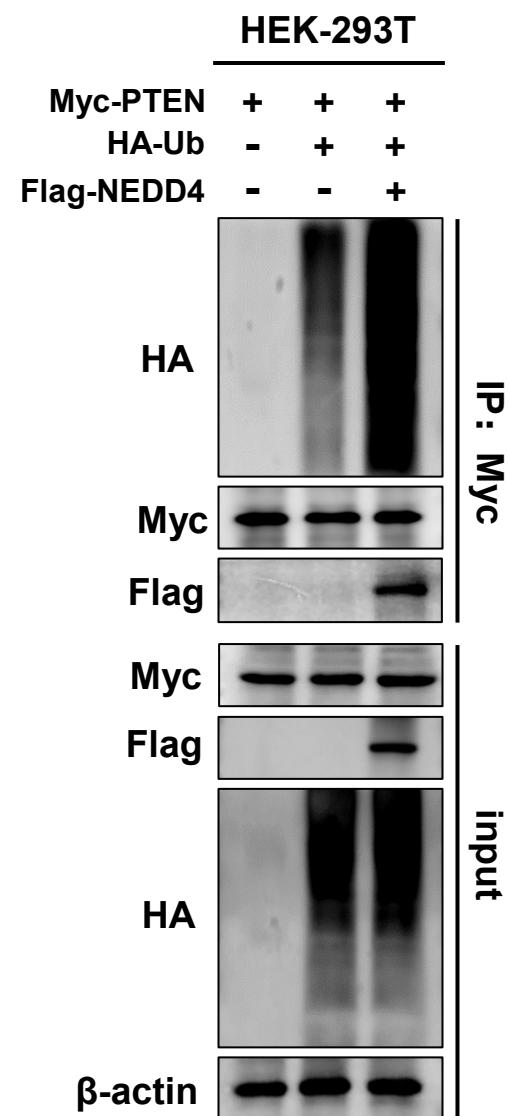
S5.C

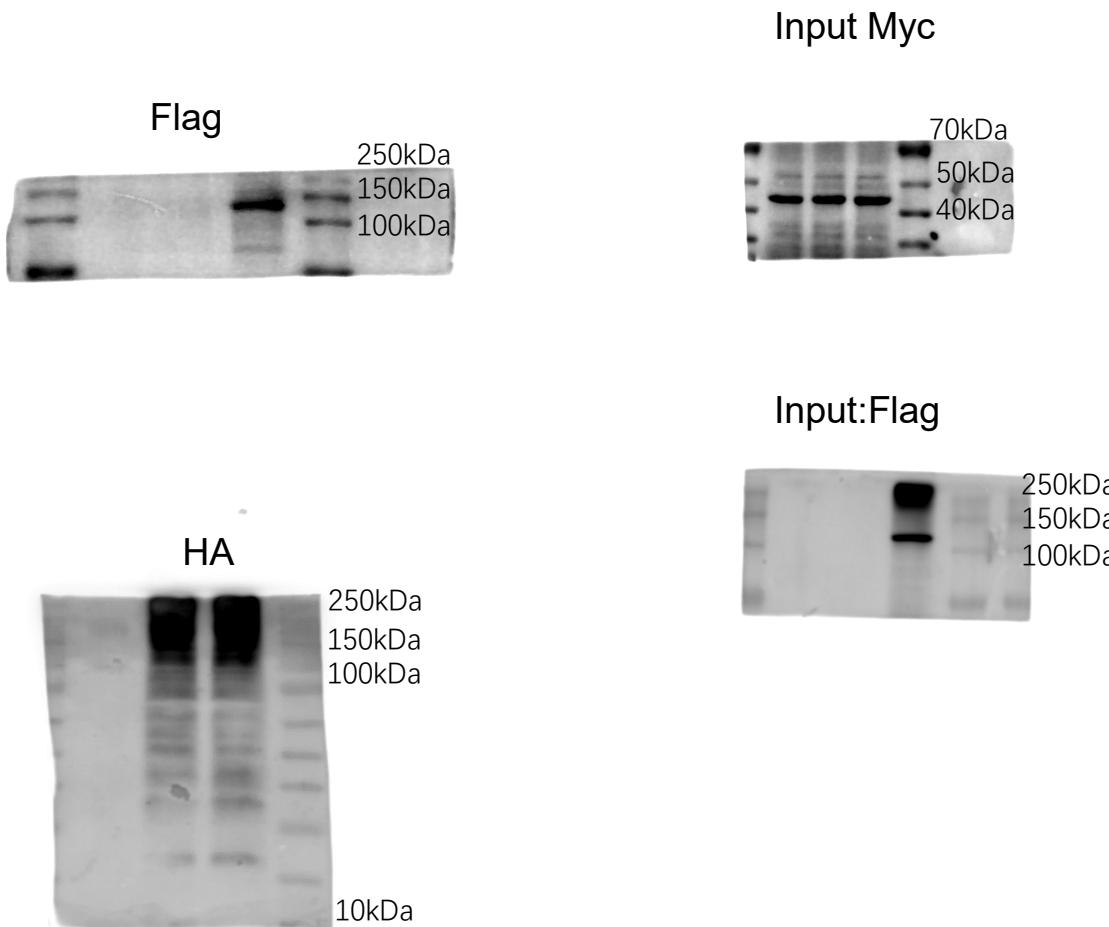
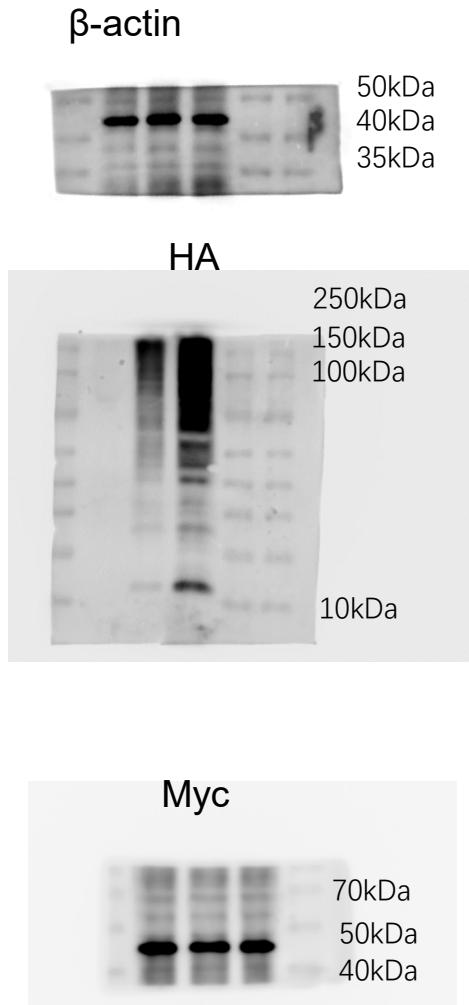




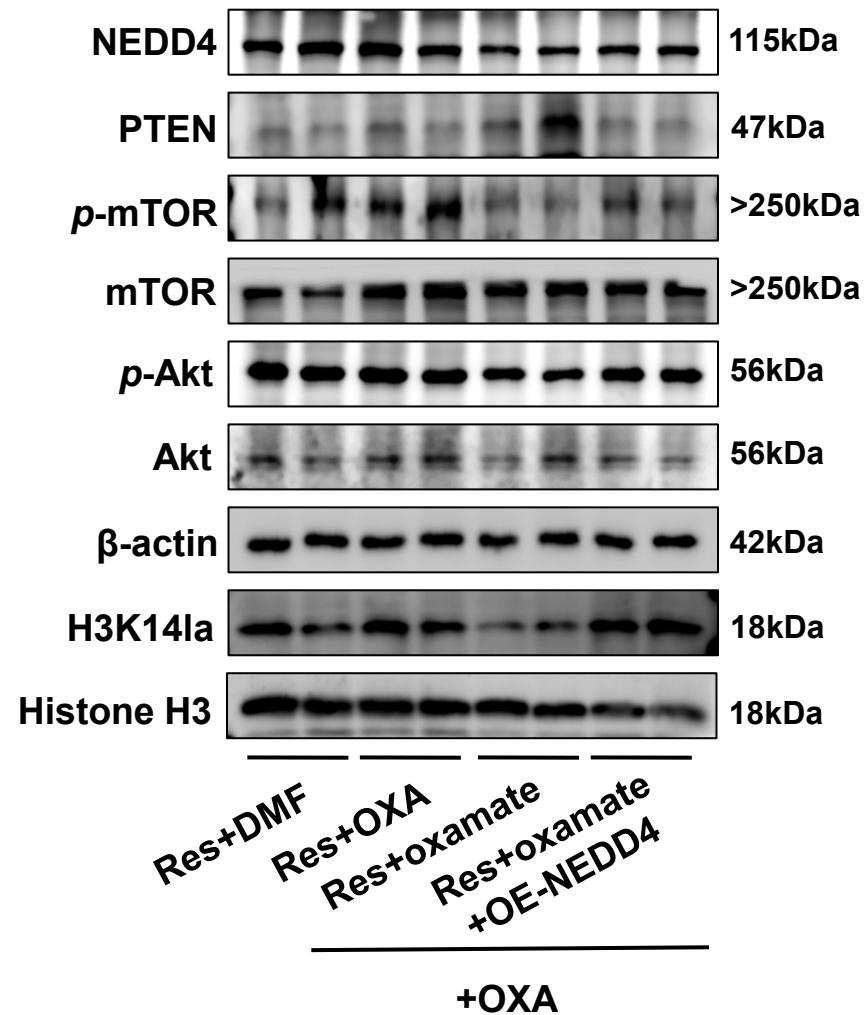


# S6.A

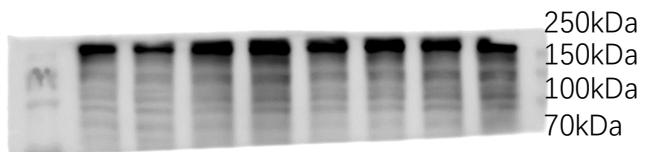




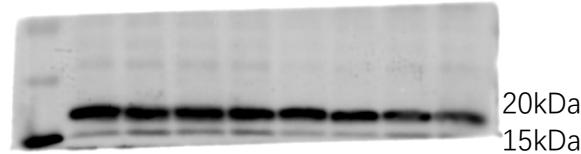
## S7.B



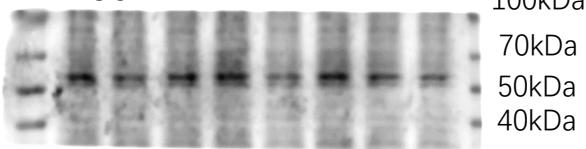
mTOR 250kDa



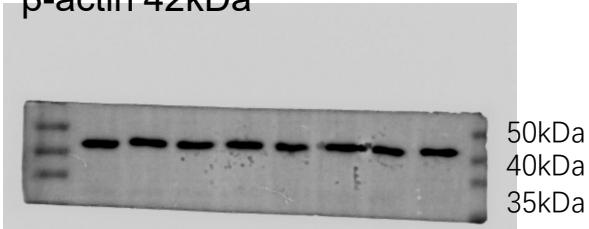
H3 18kDa



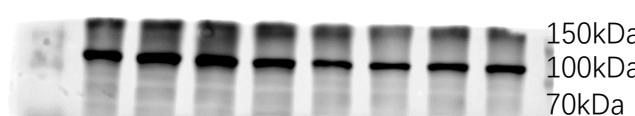
Akt 56kDa



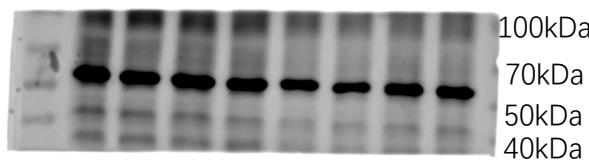
$\beta$ -actin 42kDa



NEDD4 115kDa



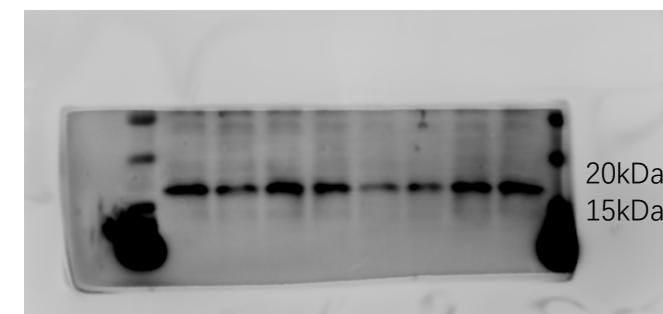
*p*-Akt 56kDa



PTEN 47kDa



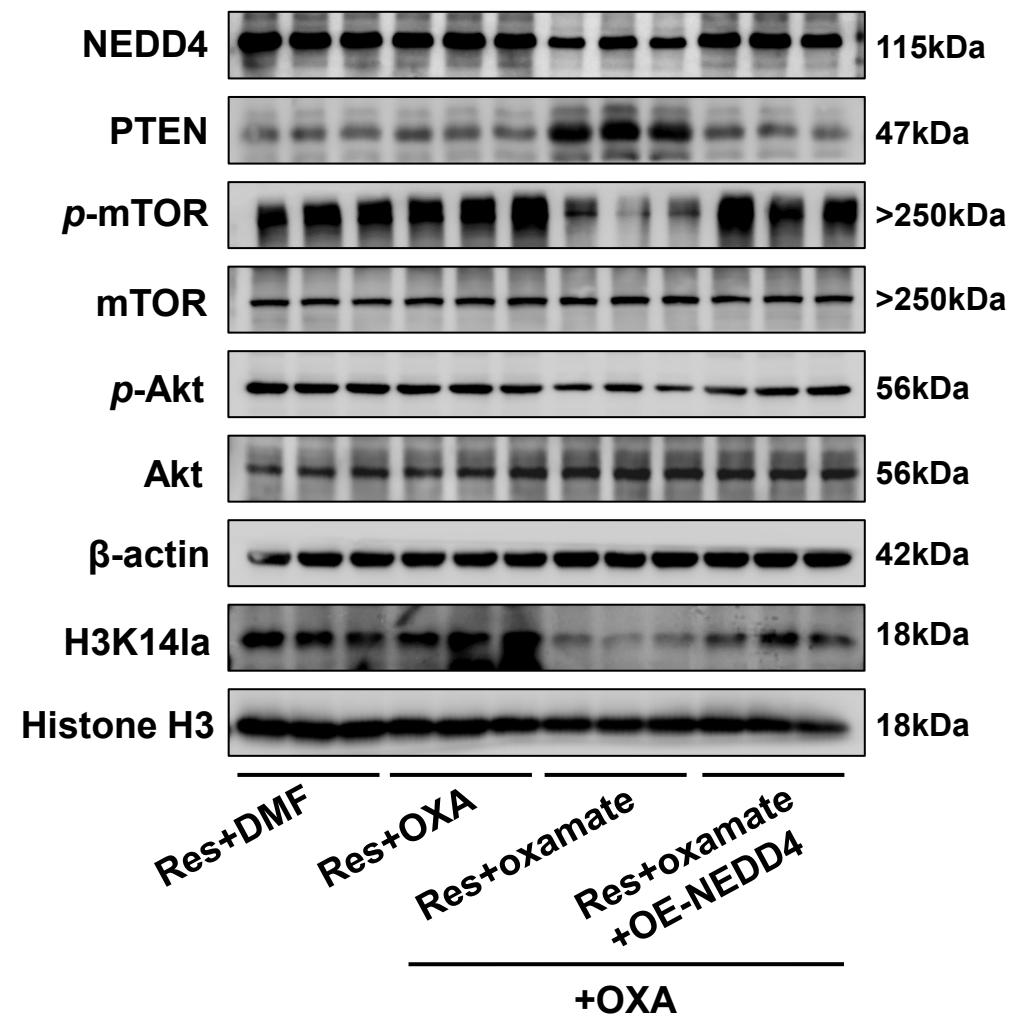
H3K14A 18kDa

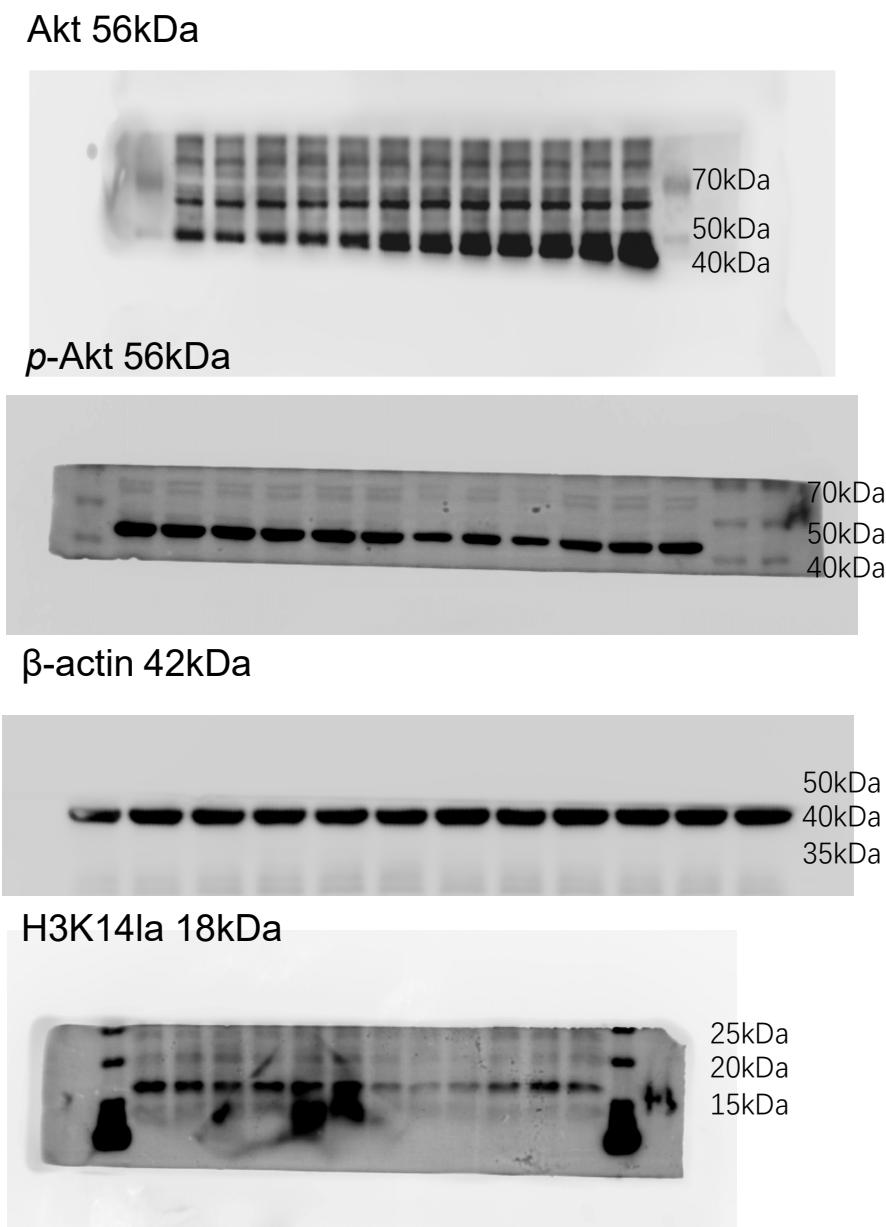
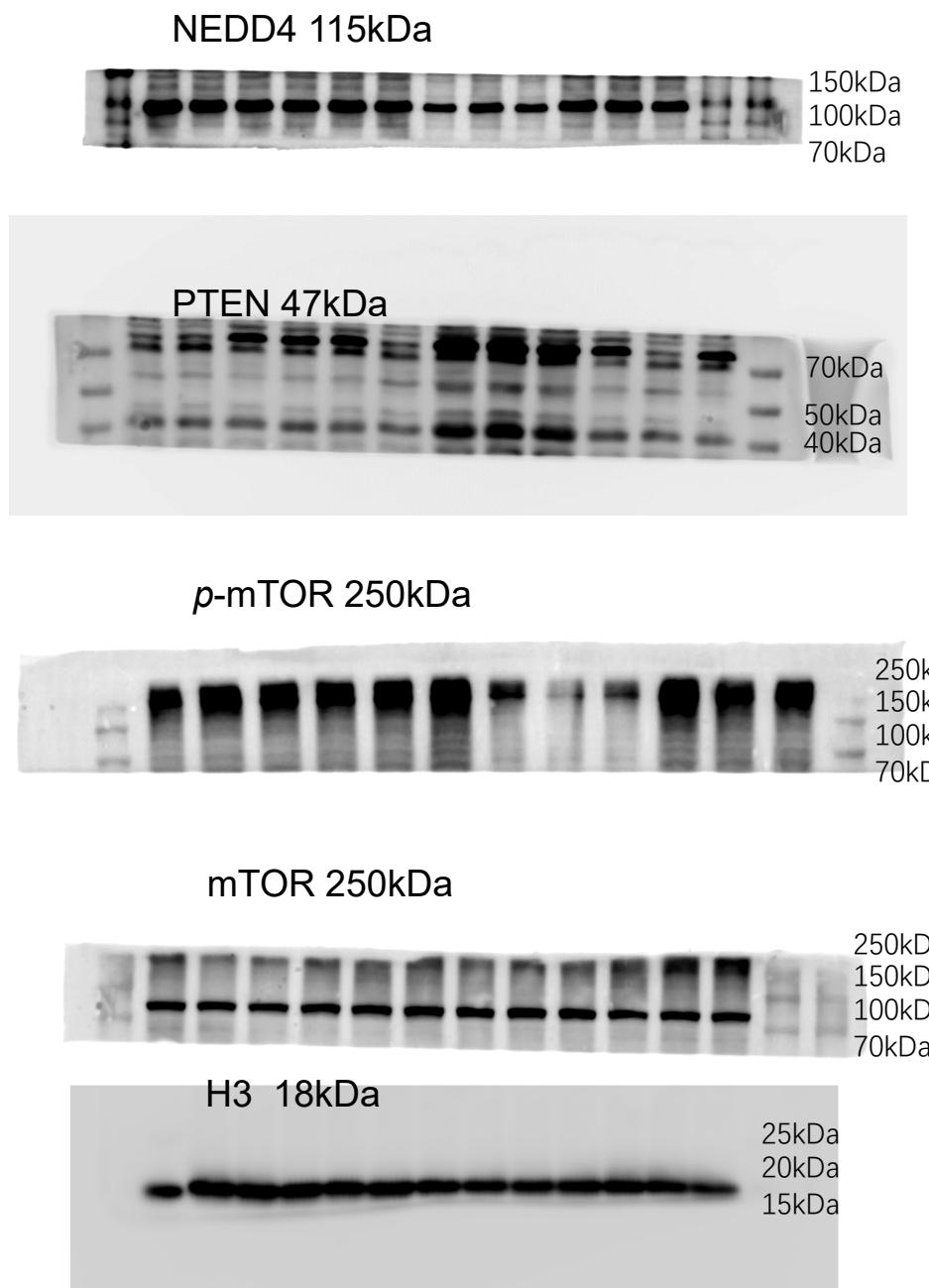


P-mTOR 250kDa

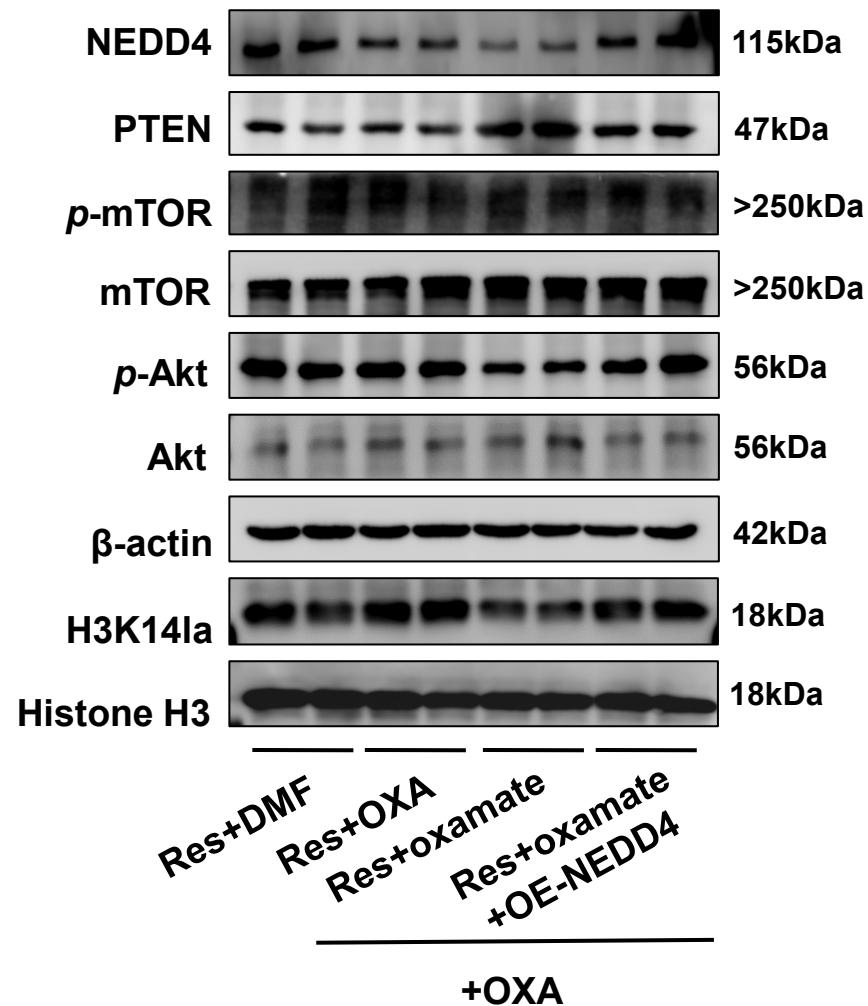


### S7.C

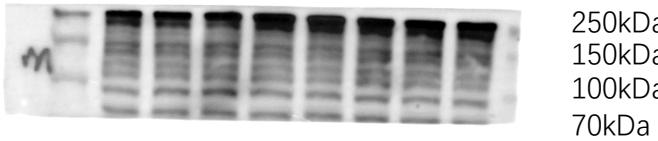




## S7.D

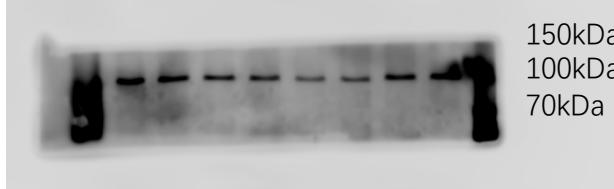


mTOR 250kDa



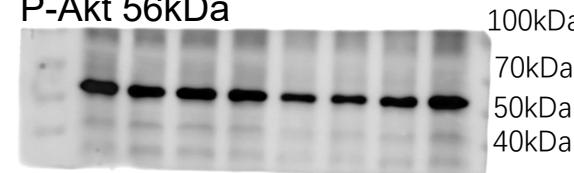
250kDa  
150kDa  
100kDa  
70kDa

NEDD4 115kDa



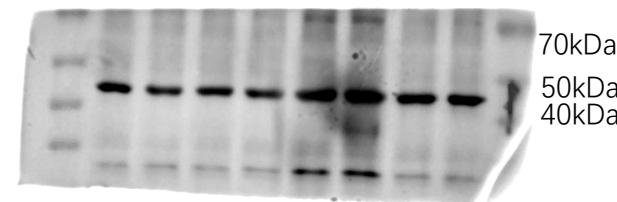
150kDa  
100kDa  
70kDa

P-Akt 56kDa



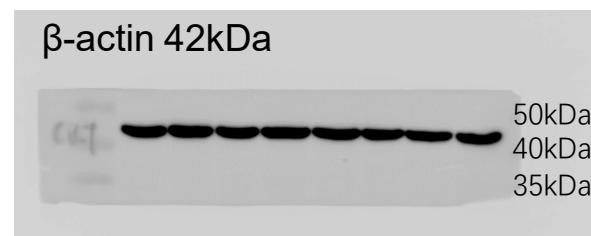
100kDa  
70kDa  
50kDa  
40kDa

PTEN 47kDa



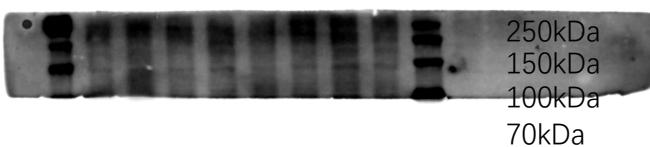
70kDa  
50kDa  
40kDa

$\beta$ -actin 42kDa



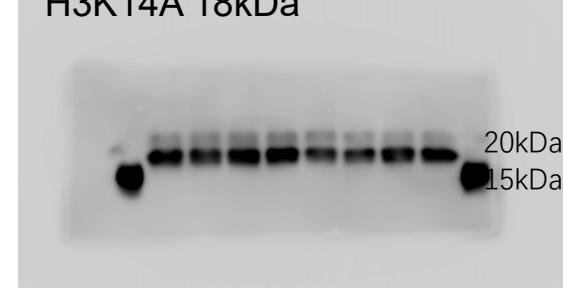
50kDa  
40kDa  
35kDa

P-mTOR 250kDa



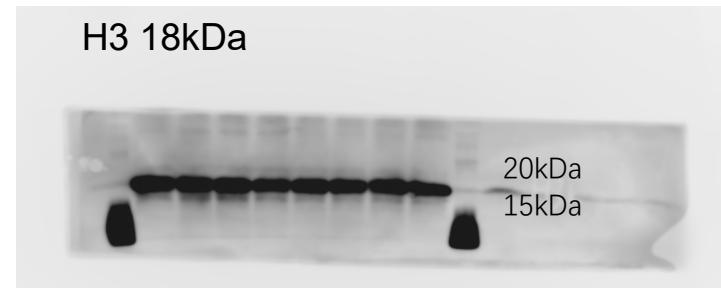
250kDa  
150kDa  
100kDa  
70kDa

H3K14A 18kDa



20kDa  
15kDa

H3 18kDa



20kDa  
15kDa