Supplementary Information

Table S1. Effects of OHPt and Pt administration on body weight, organ weights, and serum ALT levels in the PC-3 xenograft nude mouse model.

	Body weight (g)	Liver (g)	Lung (g)	Kidney (g)	Spleen (g)	ALT (IU/L)
Control	21.7 ± 3.0	0.86 ± 0.22	0.14 ± 0.03	0.33 ± 0.05	0.08 ± 0.04	23.3 ± 6.7
OHPt-L	22.5 ± 3.8	0.99 ± 0.23	0.14 ± 0.03	0.35 ± 0.05	0.07 ± 0.02	22.3 ± 5.7
OHPt-M	23.9 ± 1.6	1.03 ± 0.15	0.15 ± 0.01	0.39 ± 0.07	0.09 ± 0.03	24.2 ± 6.8
OHPt-H	24.3 ± 1.4	1.08 ± 0.18	0.14 ± 0.04	0.42 ± 0.10	0.09 ± 0.01	26.5 ± 4.8
Pt-M	21.9 ± 2.9	0.93 ± 0.22	0.15 ± 0.02	0.35 ± 0.07	0.07 ± 0.02	21.3 ± 8.7

Data are presented as mean ± SD (n = 6). No significant differences were observed among groups ($p > 0.05$).

Cell viability

(1) Concentration

48 hr

μM	Pt-1	Pt-2	Pt-3	OHPt-1	OHPt-2	OHPt-3
0	93.52	99.32	107.1	104.27	94.81	101.18
2.5	85.25	97.61	87.09	65.4	84.14	79.29
5	88.27	81.31	70.04	49.28	51.32	48.89
10	72.45	63.22	67.24	34.47	30.67	25.81
20	51.07	63.69	47.78	17.69	19.77	17.82

(2) Time (OHPt)

OHPt

μM	24 hr-1	24 hr-2	24 hr-3	48 hr-1	48 hr-2	48 hr-3	72 hr-1	72 hr-2	72 hr-3
0	98.21	103.78	98	104.27	94.81	101.18	97.34	92.39	110.26
2.5	73.86	91.22	69.87	65.4	84.14	79.29	38	44.81	42.29
5	58.48	60.08	51.03	49.28	51.32	48.89	23.06	27.96	35.74
10	46.93	50.02	44.18	34.47	30.67	25.81	13.48	10.54	20.39
20	35.06	31.47	40.11	17.69	19.77	17.82	1.45	4.04	1.25

Sub-G1 (%)

Sub-G1 (%)

μM	OHPt-1	OHPt-2	OHPt-3
0	1	1	1.1
2.5	4.9	6.1	5.6
5	13.3	12.5	12.3
10	16.7	17	16.3
20	19.9	21.6	18.4

Caspase activity

(1) Caspase-3

Caspase-3 activity

μM	OHPt-1	OHPt-2	OHPt-3
0	9.14	8.82	8.9
2.5	44.51	50.94	44.11
5	84.3	82.37	82.24
10	122.98	106.5	115.48
20	182.69	201.69	209.08

(2) Caspase-9

Caspase-9 activity

μM	OHPt-1	OHPt-2	OHPt-3
0	9.56	8.74	8.28
2.5	56.74	54.74	53.64
5	129.8	126.35	125.6
10	144.6	153.99	146.7
20	220.67	226.71	223.51

(3) Caspase-8

Caspase-8 activity

μM	OHPt-1	OHPt-2	OHPt-3
0	9.47	8.9	8.66
2.5	12.52	12.19	14.2
5	14.2	13.34	13.82
10	14.59	14.2	16.11
20	15.54	18.77	18.77

Mitochondrial membrane potential

Mitochondrial membrane potential

μM	OHPt-1	OHPt-2	OHPt-3
0	97.14	96.96	97.1
2.5	94.37	93.96	93.36
5	87.44	86.39	86.26
10	31.74	31.2	29.4
20	14.34	12.92	13.07

Tumor size (mm^3)

Control

Day	1	5	14	17	22	28
1	154.15	240.69	955.57	991.32	1712.55	2891.34
2	80.37	230.56	560.59	773.55	857.09	2038.71
3	60.19	198.05	762.44	916.24	1672.36	2334.01
4	160.47	290.31	1007.20	1260.95	1880.23	3946.39
5	62.29	96.78	518.79	584.00	603.36	1911.63
6	36.63	80.63	666.84	900.15	1336.22	2066.89

OHPt-L

Day	1	5	14	17	22	28
1	125.03	200.36	529.63	845.71	1246.04	1982.92
2	151.61	275.31	740.65	854.14	1427.22	1986.31
3	69.03	100.63	355.97	586.37	690.18	1600.59
4	90.15	155.05	503.92	767.13	848.37	1661.70
5	44.70	100.32	106.98	120.85	570.38	1193.59
6	55.85	78.31	80.95	132.28	626.85	1263.59

OHPt-M

Day	1	5	14	17	22	28
1	63.47	110.56	139.11	194.58	230.89	532.76
2	89.55	164.35	338.03	432.96	475.42	670.83
3	98.04	181.32	532.20	593.67	819.44	1337.01
4	79.56	98.91	116.28	130.96	166.53	353.91
5	76.44	100.32	129.64	180.04	219.99	523.80
6	53.88	135.61	204.56	456.32	685.09	861.78

OHPt-H

Day	1	5	14	17	22	28
1	106.48	143.63	177.27	218.14	334.12	518.80
2	67.37	90.36	99.13	105.26	137.60	200.85
3	33.38	33.64	51.10	60.71	87.31	144.99
4	152.39	205.31	219.91	285.80	444.17	545.75
5	105.38	110.31	170.59	183.47	257.32	340.53
6	76.43	96.31	105.46	130.79	187.31	286.48

Pt-M

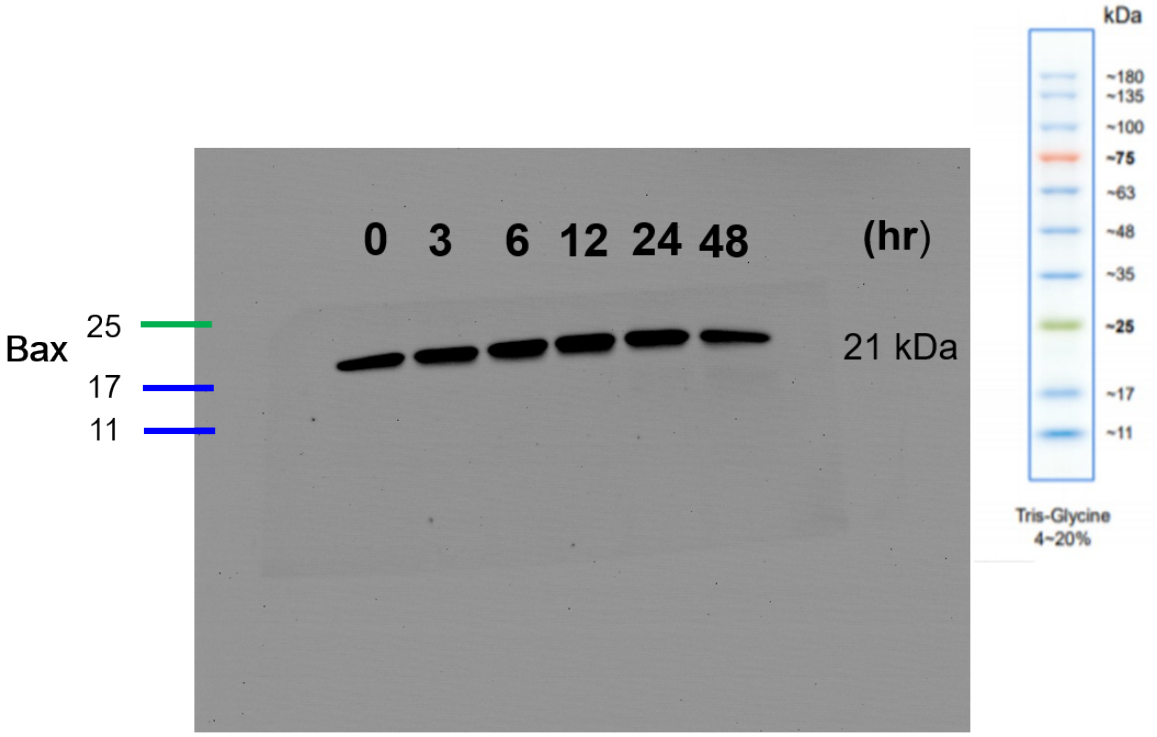
Day	1	5	14	17	22	28
1	73.79	100.36	268.31	340.76	663.65	1332.76
2	118.56	200.36	520.43	631.50	1038.93	1529.02
3	107.06	120.94	384.29	591.02	868.31	1344.14
4	52.71	63.52	161.29	220.90	593.09	876.13
5	123.93	231.64	868.65	974.78	1536.96	2317.53
6	109.56	120.31	320.97	356.48	614.13	969.37

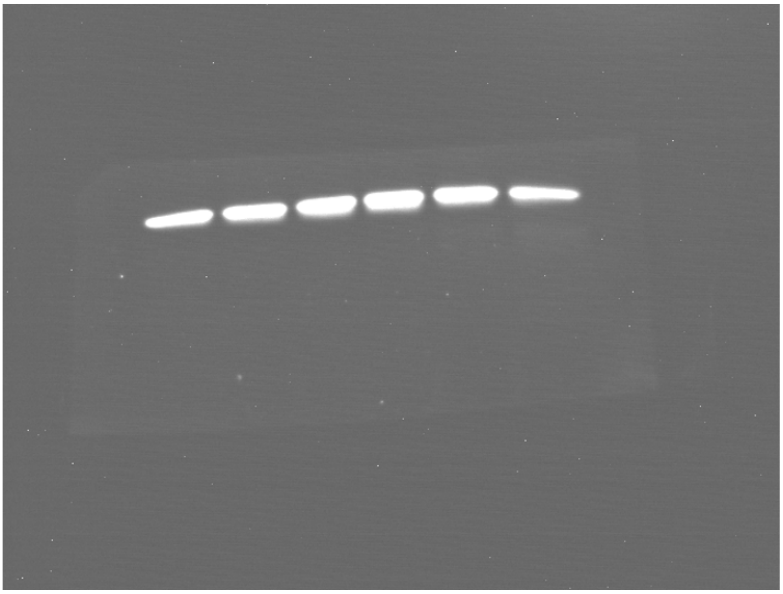
Tumor weight (g)

	Control	OHPt-L	OHPt-M	OHPt-H	Pt-M
1	2.62	2.16	0.66	0.49	1.89
2	2.39	1.79	0.78	0.21	1.97
3	2.52	2.09	1.29	0.10	1.95
4	3.30	2.62	0.38	0.57	1.59
5	2.23	1.43	0.62	0.32	2.11
6	2.44	1.86	0.79	0.22	1.73

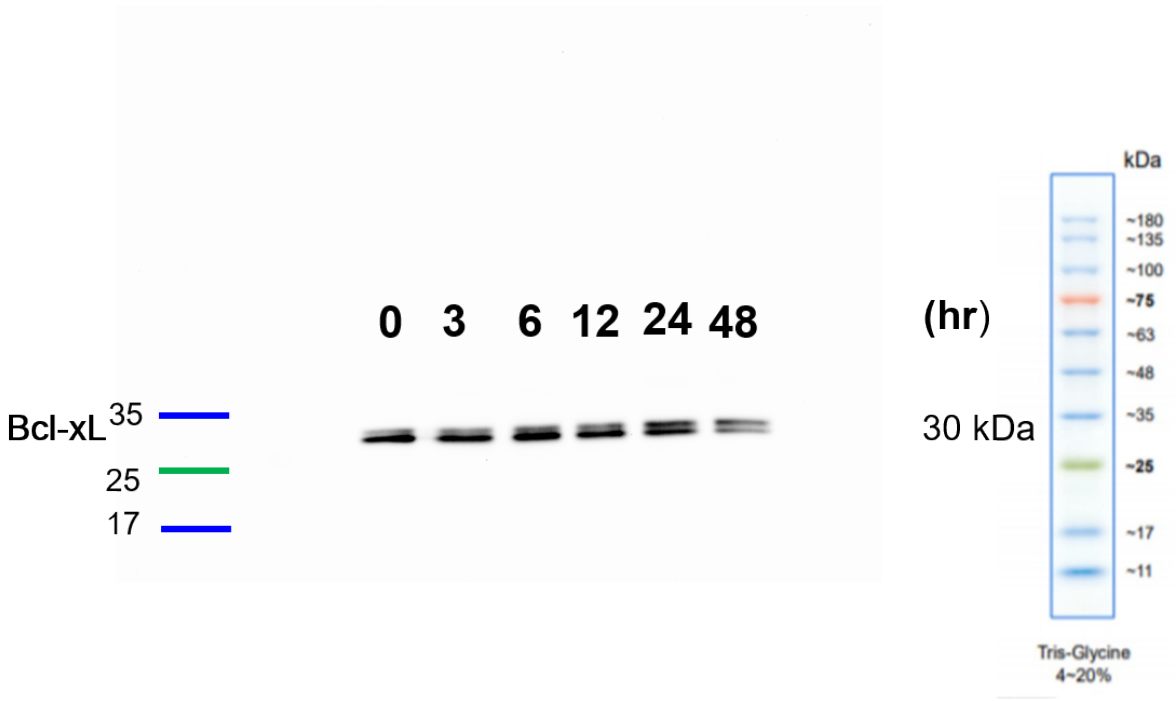
Western blot

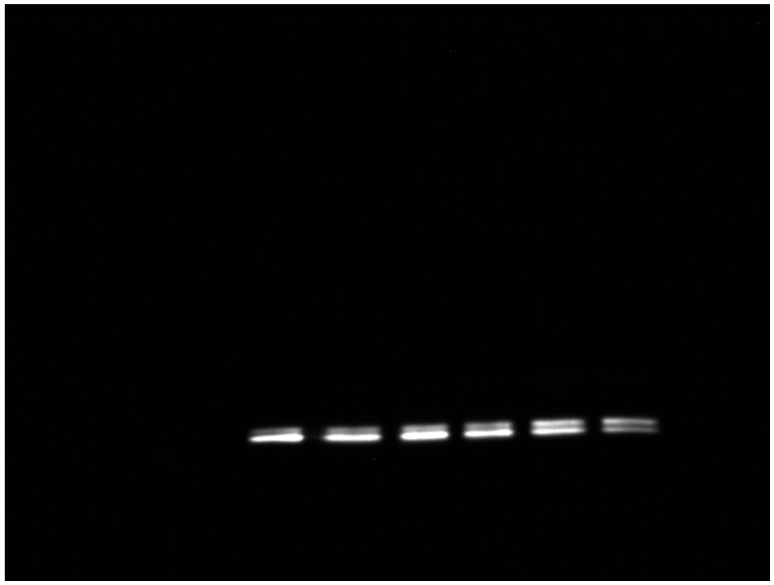
(1) Bax



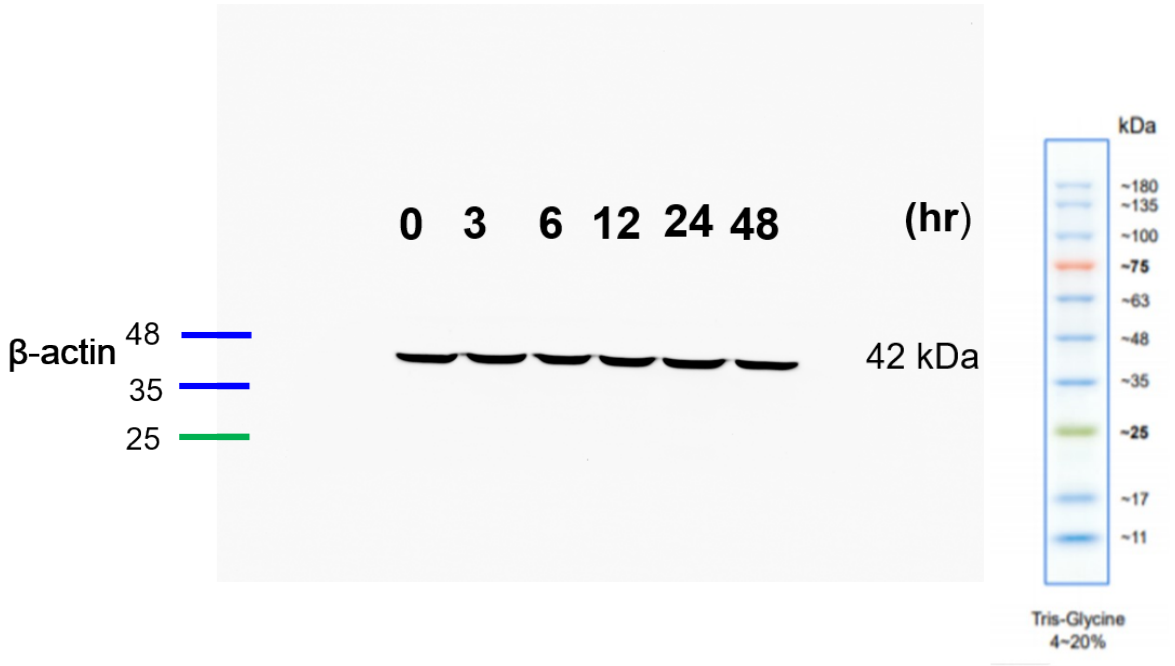


(2) Bcl-xL

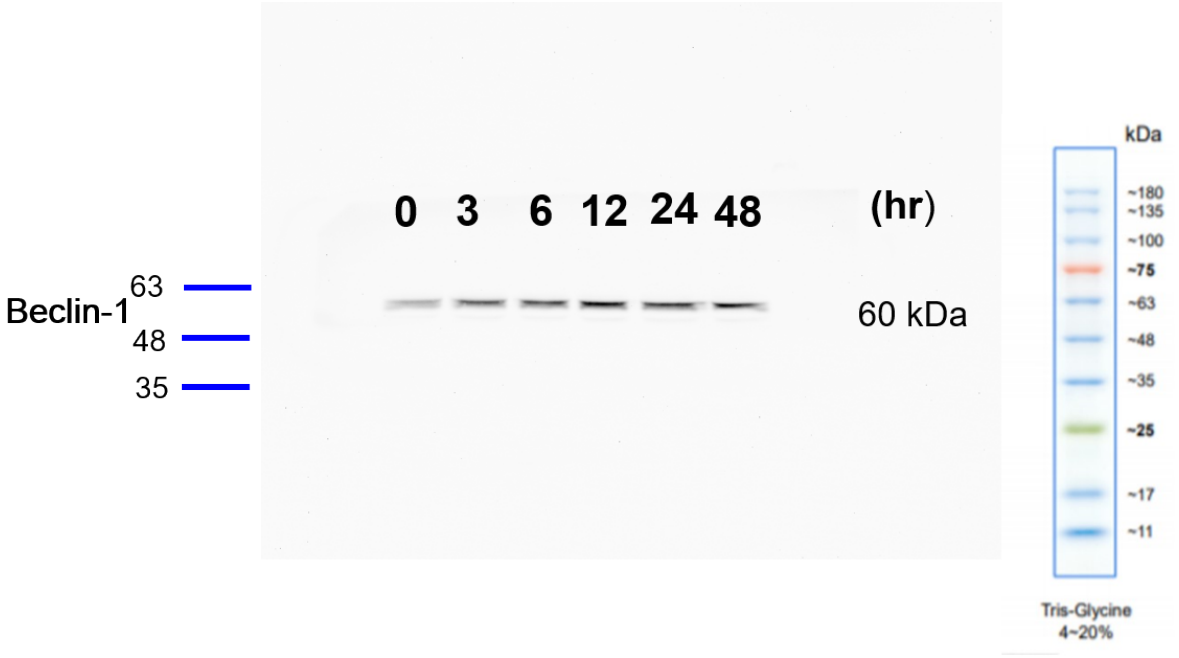

0 3 6 12 24 48
(hr)
Bcl-xL
35
25
17
30 kDa
kDa
~180
~135
~100
~75
~63
~48
~35
~25
~17
~11
Tris-Glycine
4~20%

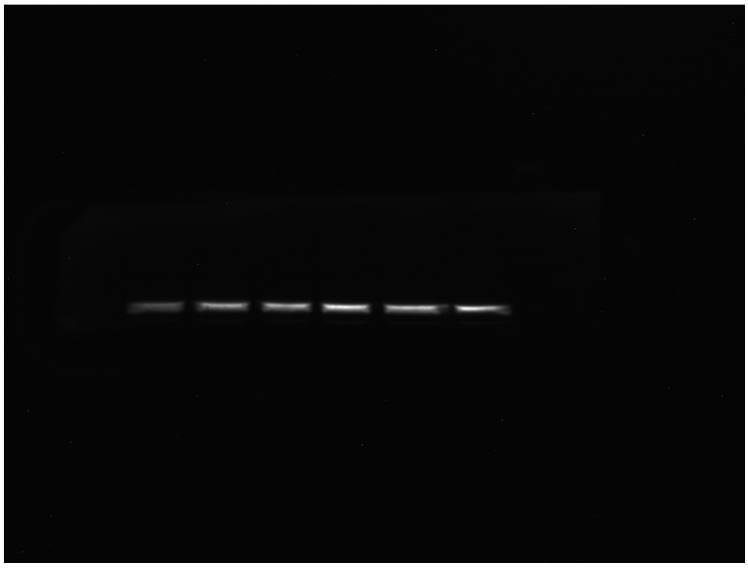


(3) β-actin

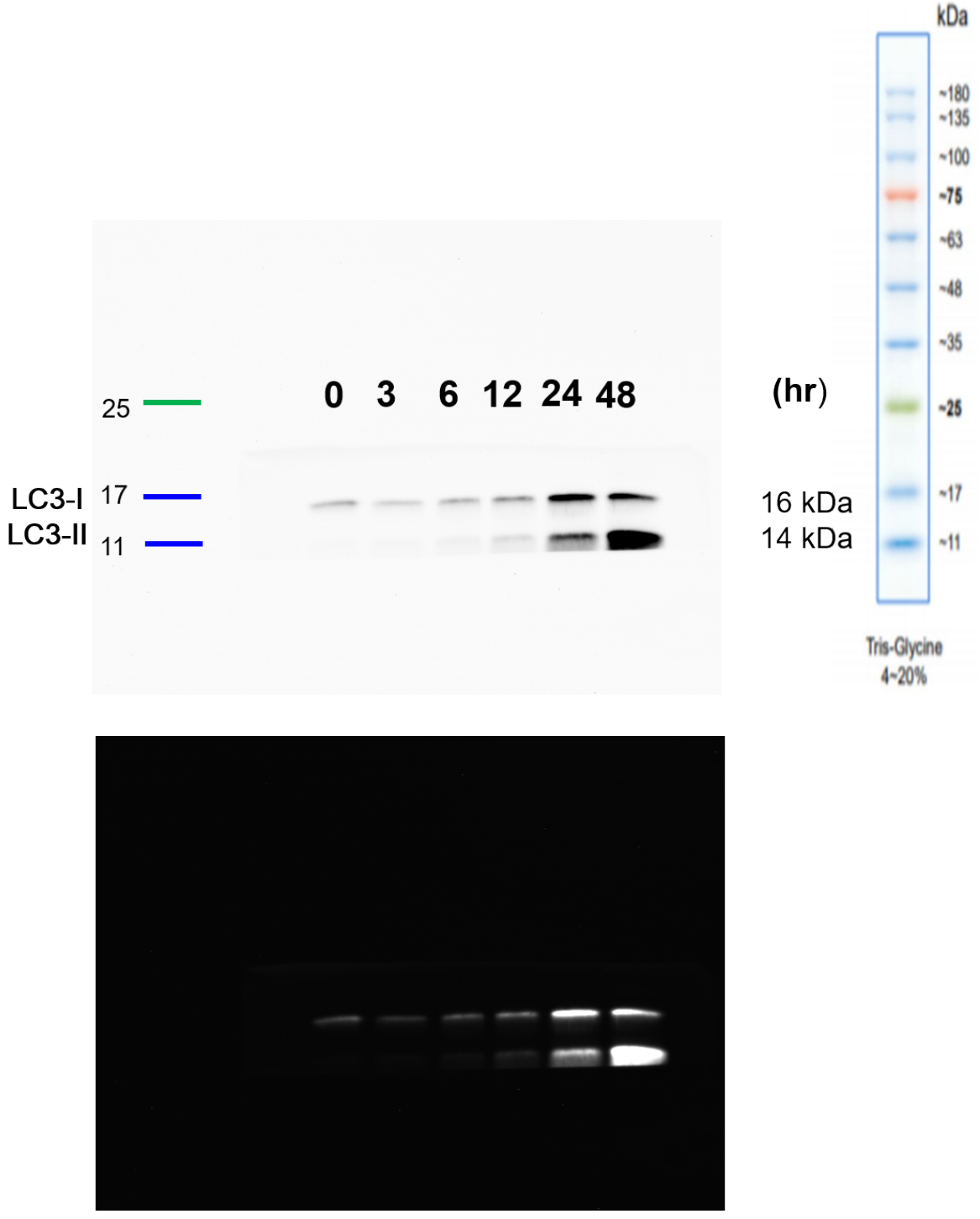

0 3 6 12 24 48 (hr)
β-actin
48
35
25
42 kDa
kDa
~180
~135
~100
~75
~63
~48
~35
~25
~17
~11
Tris-Glycine
4~20%

(4) Beclin-1

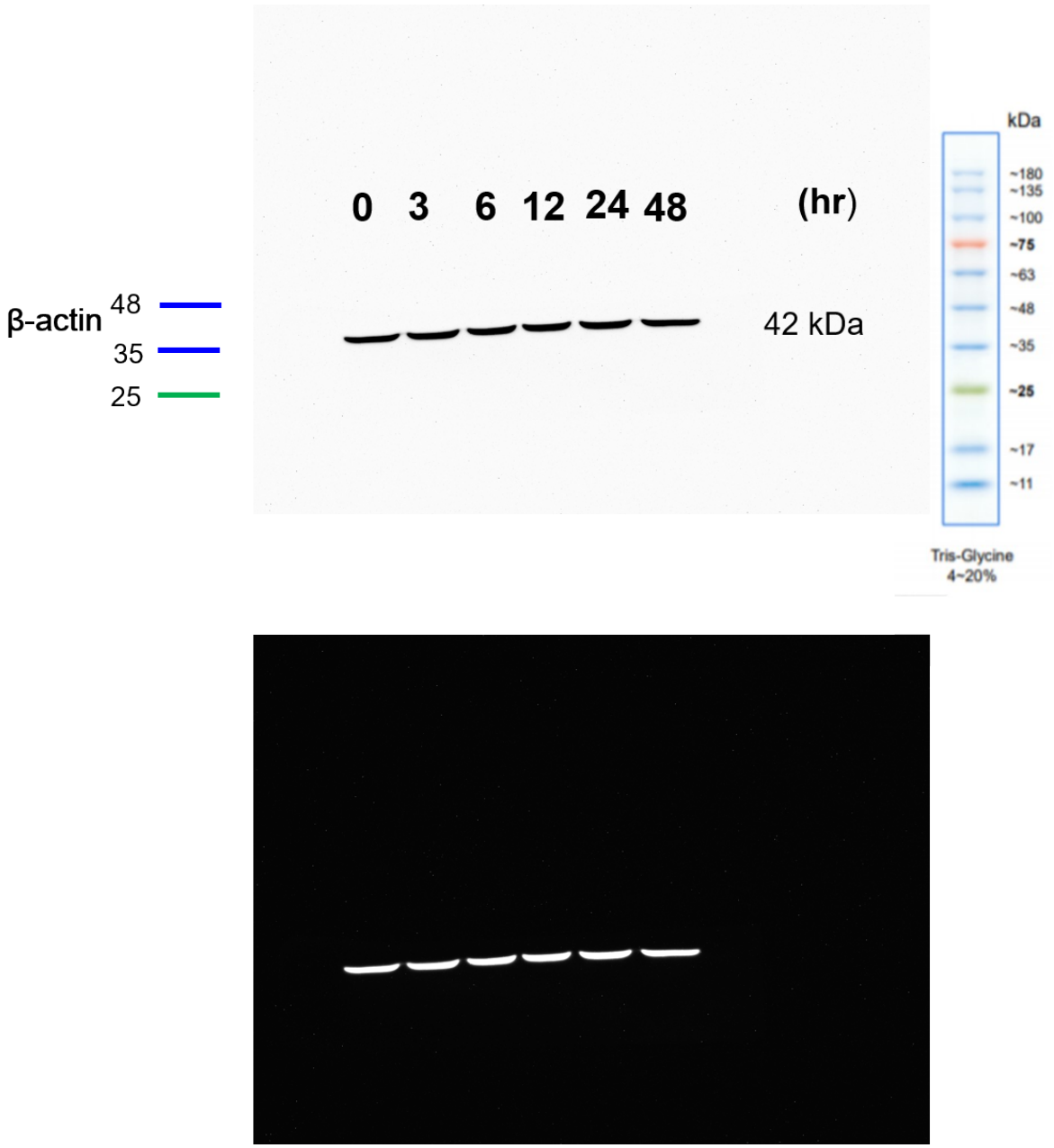

0 3 6 12 24 48 (hr)
Beclin-1
63
48
35
60 kDa
kDa
~180
~135
~100
~75
~63
~48
~35
~25
~17
~11
Tris-Glycine
4~20%



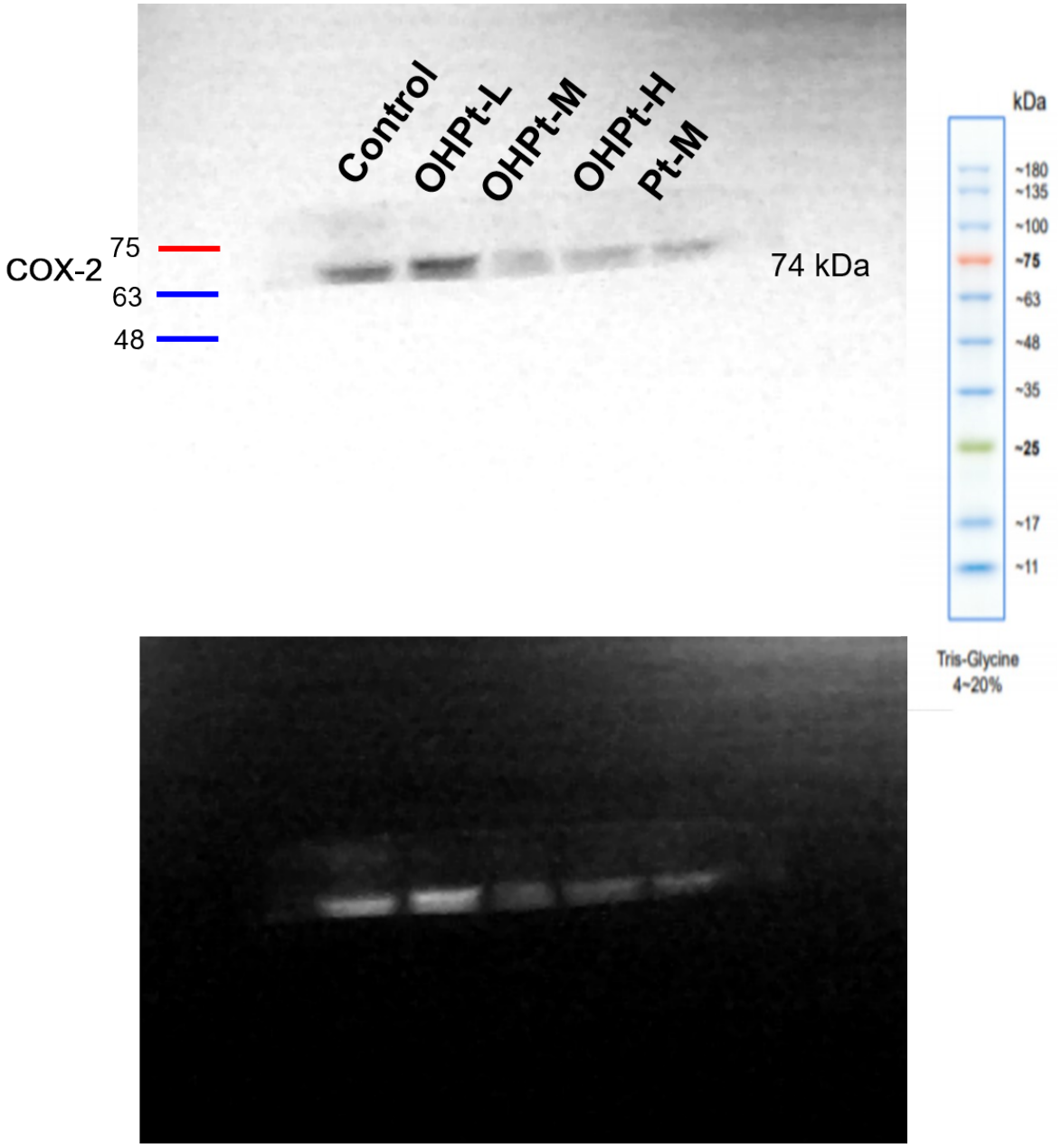
(5) LC3-I & LC3-II


kDa
~180
~135
~100
~75
~63
~48
~35
~25
~17
~11
Tris-Glycine
4~20%
0 3 6 12 24 48
(hr)
25
17
11
LC3-I
LC3-II
16 kDa
14 kDa

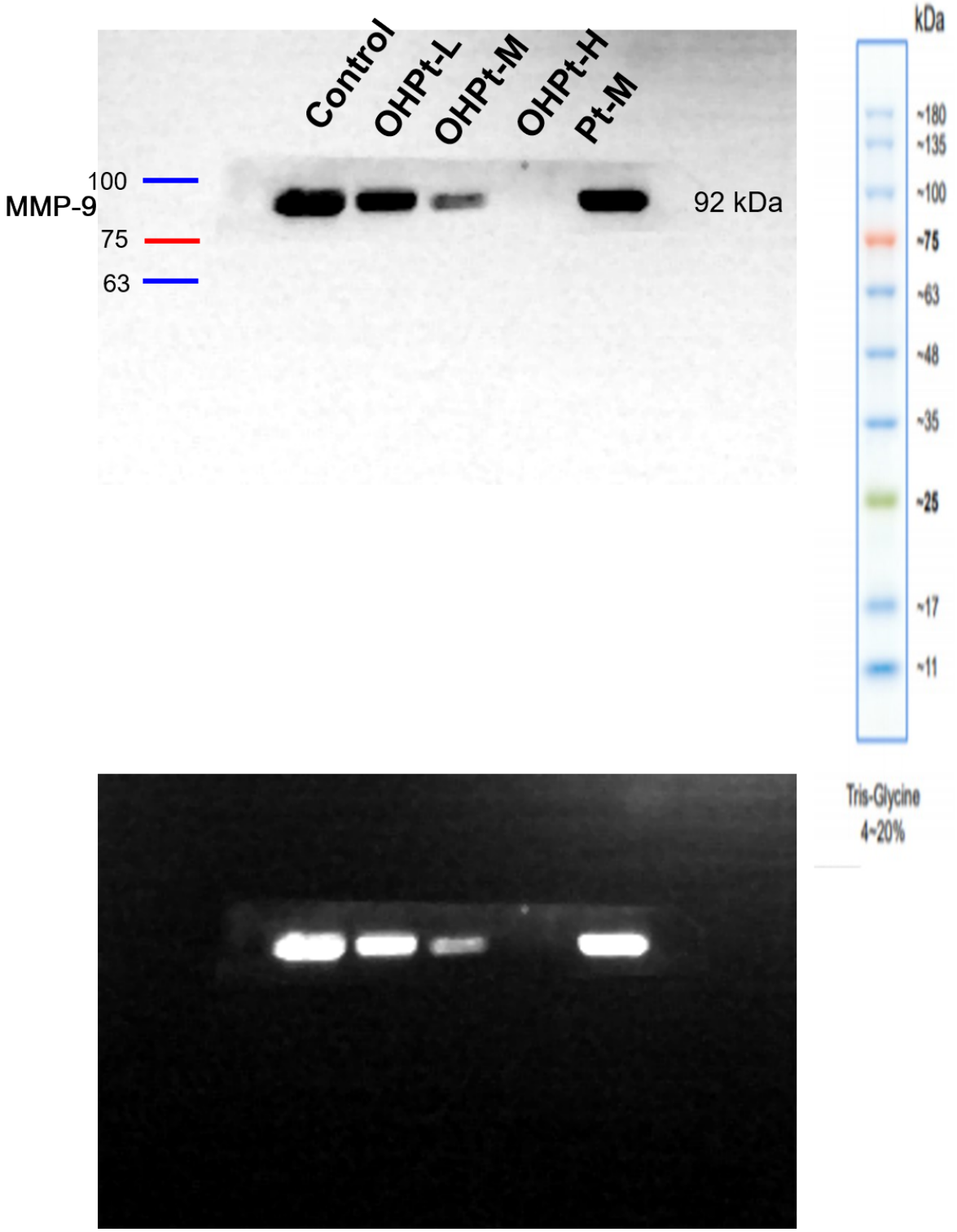
(6) β-actin


0 3 6 12 24 48 (hr)
42 kDa
β-actin
48
35
25
kDa
~180
~135
~100
~75
~63
~48
~35
~25
~17
~11
Tris-Glycine
4~20%

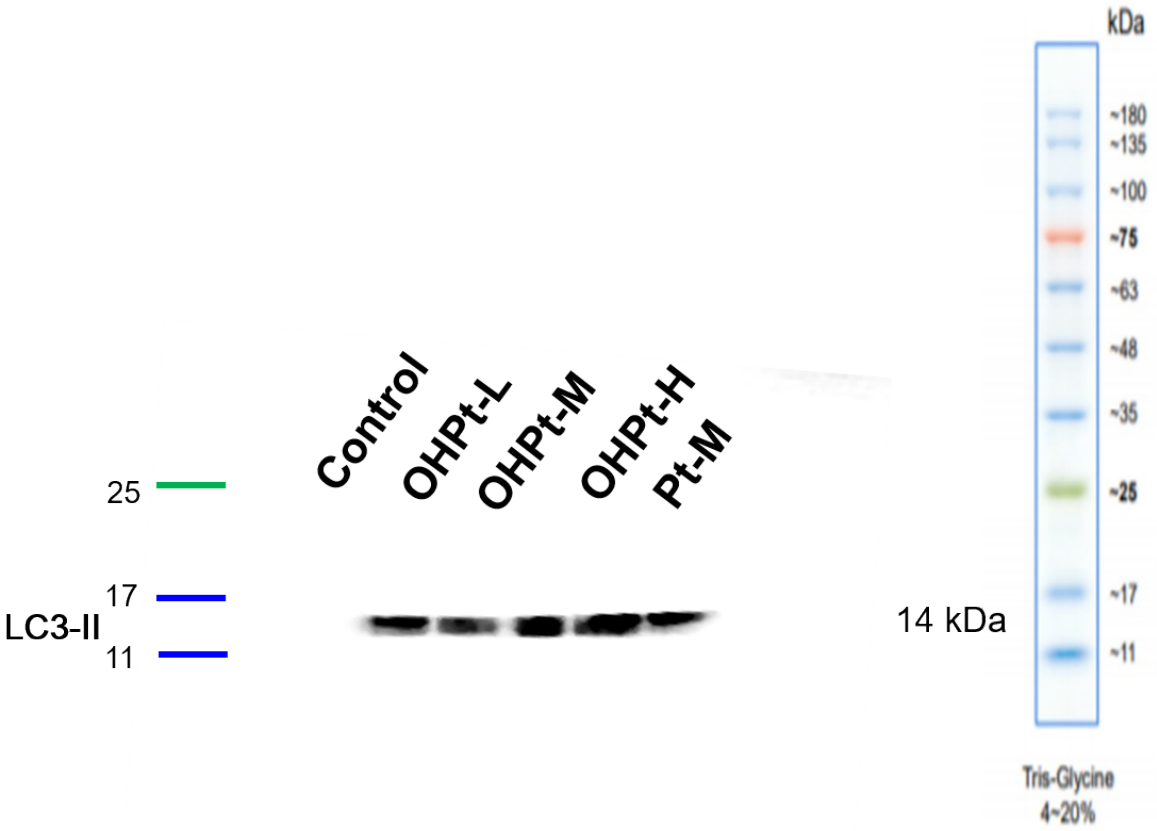
(7) COX-2

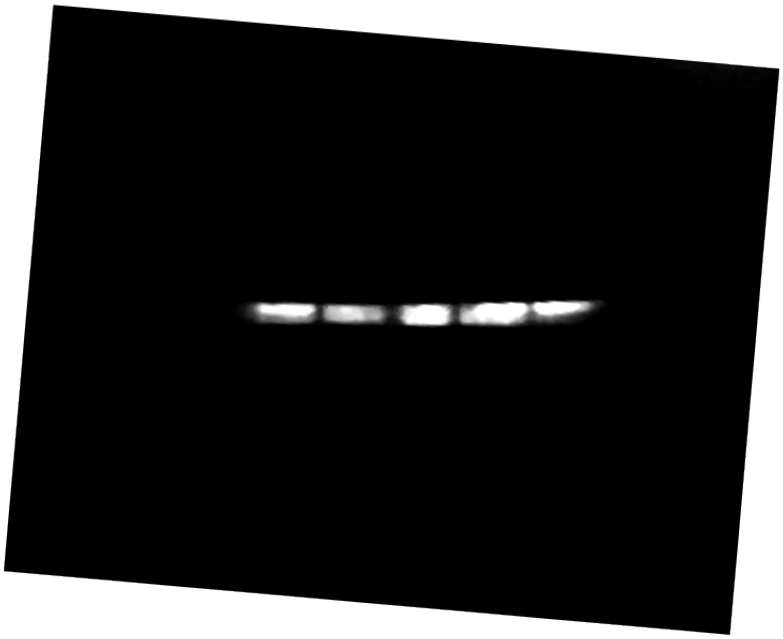

Control
OHPt-L
OHPt-M
OHPt-H
Pt-M
COX-2
75
63
48
74 kDa
kDa
~180
~135
~100
~75
~63
~48
~35
~25
~17
~11
Tris-Glycine
4~20%

(8) MMP-9


Control
OHPt-L
OHPt-M
OHPt-H
Pt-M
MMP-9
100
75
63
92 kDa
kDa
~180
~135
~100
~75
~63
~48
~35
~25
~17
~11
Tris-Glycine
4~20%

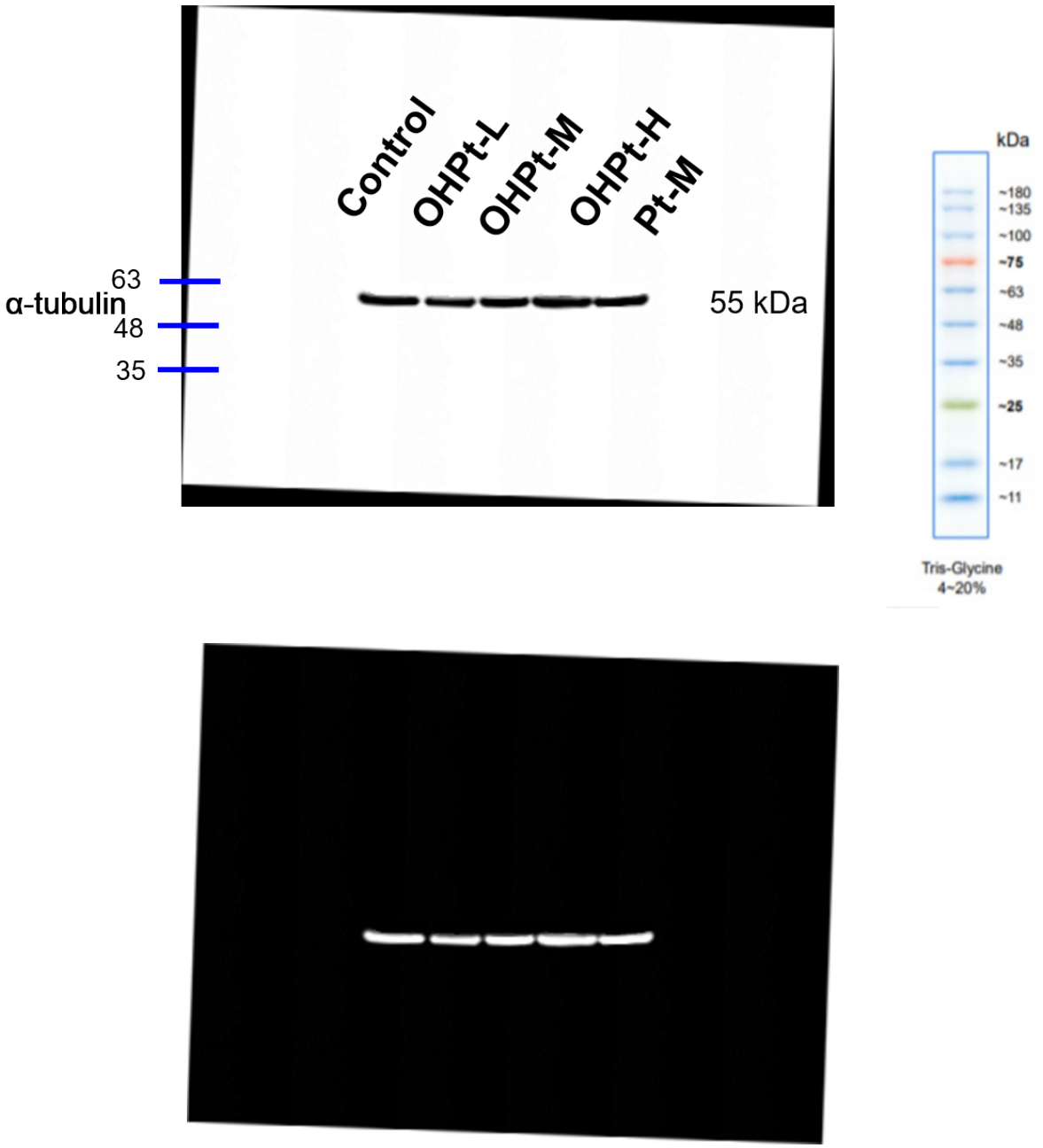
(9) LC3-II


kDa
~180
~135
~100
~75
~63
~48
~35
~25
~17
~11
Tris-Glycine
4~20%
Control
OHPt-L
OHPt-M
OHPt-H
Pt-M
25
17
11
LC3-II
14 kDa



(10)

(11) α-tubulin


Control
OHPt-L
OHPt-M
OHPt-H
Pt-M
63
α-tubulin
48
35
55 kDa
kDa
~180
~135
~100
~75
~63
~48
~35
~25
~17
~11
Tris-Glycine
4~20%