Supplementary Statistical Tables

WB: three independent biological experiments, with all four conditions in every run; two-sided paired t tests with Holm correction across six pairs per protein. CCK-8: five independent experiments per condition and time point; two-sided Welch t tests with Holm correction across eight comparisons per panel. All final Excel observations were retained. LC3 reporter images were qualitative and were not assigned P values.

WB_descriptive_statistics.csv

experiment	protein	group	n_records	mean	SD
19-WB	Beclin1	Control	3	1	0.0558442
19-WB	Beclin1	Model	3	1.45405	0.0346636
19-WB	Beclin1	Model+siNC	3	1.43117	0.0731389
19-WB	Beclin1	Model+siHNRNPC	3	0.734307	0.0239045
19-WB	FOXO1	Control	3	1	0.0787436
19-WB	FOXO1	Model	3	0.61442	0.024059
19-WB	FOXO1	Model+siNC	3	0.528761	0.044371
19-WB	FOXO1	Model+siHNRNPC	3	0.316048	0.0533524
19-WB	LC3-II	Control	3	1	0.147494
19-WB	LC3-II	Model	3	1.56603	0.0322924
19-WB	LC3-II	Model+siNC	3	1.52182	0.0599746
19-WB	LC3-II	Model+siHNRNPC	3	0.844915	0.00932975
25-WB	Beclin1	siNC	3	1	0.129688
25-WB	Beclin1	siHNRNPC	3	0.562015	0.0667764
25-WB	Beclin1	siHNRNPC+Vector	3	0.554533	0.0211256
25-WB	Beclin1	siHNRNPC+FOXO1	3	1.06676	0.0900873
25-WB	FOXO1	siNC	3	1	0.194441
25-WB	FOXO1	siHNRNPC	3	0.591828	0.126114
25-WB	FOXO1	siHNRNPC+Vector	3	0.546356	0.0684027
25-WB	FOXO1	siHNRNPC+FOXO1	3	1.12937	0.107248
25-WB	LC3-II	siNC	3	1	0.155824
25-WB	LC3-II	siHNRNPC	3	0.572645	0.0583021
25-WB	LC3-II	siHNRNPC+Vector	3	0.546438	0.0722622
25-WB	LC3-II	siHNRNPC+FOXO1	3	1.03745	0.154968

WB_final_matched_statistics.csv

experiment	protein	group_A	group_B	p_adjusted_where_applicable
19-WB	Beclin1	Control	Model	0.0214555
19-WB	Beclin1	Control	Model+siNC	0.0626563
19-WB	Beclin1	Control	Model+siHNRNPC	0.0626563
19-WB	Beclin1	Model	Model+siNC	0.68386
19-WB	Beclin1	Model	Model+siHNRNPC	0.00152415
19-WB	Beclin1	Model+siNC	Model+siHNRNPC	0.0146532
19-WB	FOXO1	Control	Model	0.0347167
19-WB	FOXO1	Control	Model+siNC	0.0347167
19-WB	FOXO1	Control	Model+siHNRNPC	0.0347167
19-WB	FOXO1	Model	Model+siNC	0.0414319
19-WB	FOXO1	Model	Model+siHNRNPC	0.0399801
19-WB	FOXO1	Model+siNC	Model+siHNRNPC	0.0399801
19-WB	LC3-II	Control	Model	0.0915924
19-WB	LC3-II	Control	Model+siNC	0.0585619
19-WB	LC3-II	Control	Model+siHNRNPC	0.412352
19-WB	LC3-II	Model	Model+siNC	0.413948
19-WB	LC3-II	Model	Model+siHNRNPC	0.00357252
19-WB	LC3-II	Model+siNC	Model+siHNRNPC	0.00998961
25-WB	Beclin1	siNC	siHNRNPC	0.128617

25-WB	Beclin1	siNC	siHNRNPC+Vector	0.128617
25-WB	Beclin1	siNC	siHNRNPC+FOXO1	0.248751
25-WB	Beclin1	siHNRNPC	siHNRNPC+Vector	0.825389
25-WB	Beclin1	siHNRNPC	siHNRNPC+FOXO1	0.0690052
25-WB	Beclin1	siHNRNPC+Vector	siHNRNPC+FOXO1	0.0690052
25-WB	FOXO1	siNC	siHNRNPC	0.0380073
25-WB	FOXO1	siNC	siHNRNPC+Vector	0.159069
25-WB	FOXO1	siNC	siHNRNPC+FOXO1	0.318183
25-WB	FOXO1	siHNRNPC	siHNRNPC+Vector	0.583667
25-WB	FOXO1	siHNRNPC	siHNRNPC+FOXO1	0.0102652
25-WB	FOXO1	siHNRNPC+Vector	siHNRNPC+FOXO1	0.0364077
25-WB	LC3-II	siNC	siHNRNPC	0.0466381
25-WB	LC3-II	siNC	siHNRNPC+Vector	0.0466381
25-WB	LC3-II	siNC	siHNRNPC+FOXO1	0.00240909
25-WB	LC3-II	siHNRNPC	siHNRNPC+Vector	0.100484
25-WB	LC3-II	siHNRNPC	siHNRNPC+FOXO1	0.0466381
25-WB	LC3-II	siHNRNPC+Vector	siHNRNPC+FOXO1	0.0466381

CCK8_latest_Excel_descriptives.csv

panel	group	time_h	n_experiments	mean	SD
1	Control	0	5	1	0.0635356
1	Control	12	5	2.4076	0.147284
1	Control	24	5	3.04388	0.452354
1	Control	48	5	3.78527	0.385385
1	模型	0	5	1	0.112135
1	模型	12	5	2.08835	0.396515
1	模型	24	5	2.17935	0.921313
1	模型	48	5	3.90386	0.357117
1	siNC+模型	0	5	1	0.162062
1	siNC+模型	12	5	1.20299	0.116362
1	siNC+模型	24	5	1.39719	0.189882
1	siNC+模型	48	5	2.30135	0.254458
1	siHNRNPC#2+模型	0	5	1	0.133736
1	siHNRNPC#2+模型	12	5	2.45401	0.28953
1	siHNRNPC#2+模型	24	5	2.46835	0.669897
1	siHNRNPC#2+模型	48	5	4.50685	0.264842
2	siNC	0	5	1	0.147134
2	siNC	12	5	2.0099	0.222695
2	siNC	24	5	2.40236	0.190326
2	siNC	48	5	3.81594	0.235819
2	siHNRNPC#2	0	5	1	0.0567949
2	siHNRNPC#2	12	5	2.04959	0.193873
2	siHNRNPC#2	24	5	2.53347	0.334953
2	siHNRNPC#2	48	5	4.32867	0.352111
2	siHNRNPC#2+Vector	0	5	1	0.0227875
2	siHNRNPC#2+Vector	12	5	1.46143	0.108621
2	siHNRNPC#2+Vector	24	5	1.66428	0.392557
2	siHNRNPC#2+Vector	48	5	3.63673	0.347985
2	siHNRNPC#2+OE FOXO1	0	5	1	0.0564106
2	siHNRNPC#2+OE FOXO1	12	5	1.07728	0.514026
2	siHNRNPC#2+OE FOXO1	24	5	0.580904	0.489638
2	siHNRNPC#2+OE FOXO1	48	5	3.28579	0.518506

CCK8_latest_Excel_statistics.csv

panel	time_h	group_A	group_B	difference_A_minus_B	p_Holm_8_tests_per_panel
1	0	Control	模型	0	1
1	0	siNC+模型	siHNRNPC#2+模	-2.22045e-16	1

			型		
1	12	Control	模型	0.319244	0.605295
1	12	siNC+模型	siHNRNPC#2+模型	-1.25102	0.00154754
1	24	Control	模型	0.864524	0.550588
1	24	siNC+模型	siHNRNPC#2+模型	-1.07116	0.124667
1	48	Control	模型	-0.118591	1
1	48	siNC+模型	siHNRNPC#2+模型	-2.2055	7.35891e-06
2	0	siNC	siHNRNPC#2	0	1
2	0	siHNRNPC#2+Vector	siHNRNPC#2+OE FOXO1	0	1
2	12	siNC	siHNRNPC#2	-0.0396853	1
2	12	siHNRNPC#2+Vector	siHNRNPC#2+OE FOXO1	0.384157	1
2	24	siNC	siHNRNPC#2	-0.131109	1
2	24	siHNRNPC#2+Vector	siHNRNPC#2+OE FOXO1	1.08338	0.0420141
2	48	siNC	siHNRNPC#2	-0.512735	0.213168
2	48	siHNRNPC#2+Vector	siHNRNPC#2+OE FOXO1	0.350944	1