

Supplementary Material

Supplement Figure 1 Pooled analysis of TBK1 in CRC and normal tissues across 14 datasets.

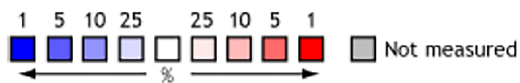
Comparison of TBK1 Across 14 Analyses

Over-expression / Copy Number Gain

Median Rank	p-Value	Gene																		
3710.5	0.006	TBK1																		
			1	2	3	4	5	6	7	8	9	10	11	12	13	14				

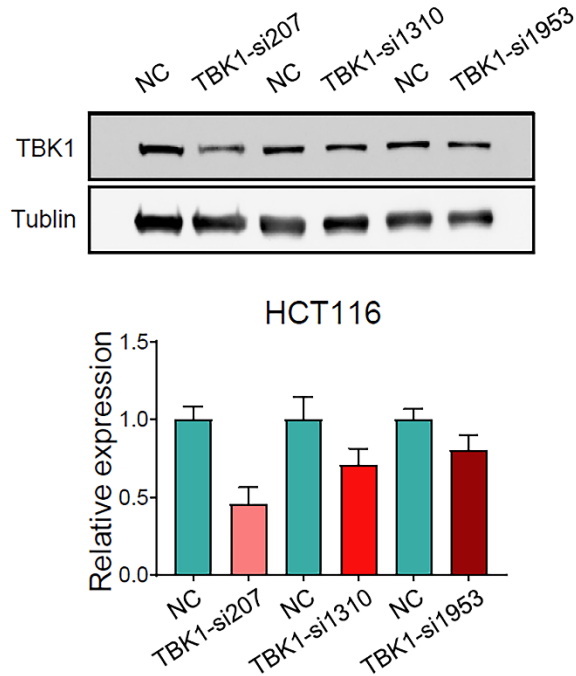
Legend

1. Colorectal Adenoma Epithelia vs. Normal
Gaspar Colon, Am J Pathol, 2008
2. Colorectal Carcinoma vs. Normal
Hong Colorectal, Clin Exp Metastasis, 2010
3. Colon Adenoma vs. Normal
Sabates-Bellver Colon, Mol Cancer Res, 2007
4. Rectal Adenoma vs. Normal
Sabates-Bellver Colon, Mol Cancer Res, 2007
5. Colorectal Adenocarcinoma vs. Normal
Skrzypczak Colorectal, PLoS One, 2010
6. Colorectal Carcinoma vs. Normal
Skrzypczak Colorectal, PLoS One, 2010
7. Cecum Adenocarcinoma vs. Normal
TCGA Colorectal, No Associated Paper, 2011
8. Colon Adenocarcinoma vs. Normal
TCGA Colorectal, No Associated Paper, 2011
9. Colon Mucinous Adenocarcinoma vs. Normal
TCGA Colorectal, No Associated Paper, 2011
10. Rectal Adenocarcinoma vs. Normal
TCGA Colorectal, No Associated Paper, 2011
11. Cecum Adenocarcinoma vs. Normal
TCGA Colorectal 2, No Associated Paper, 2011
12. Colon Adenocarcinoma vs. Normal
TCGA Colorectal 2, No Associated Paper, 2011
13. Colon Mucinous Adenocarcinoma vs. Normal
TCGA Colorectal 2, No Associated Paper, 2011
14. Rectal Mucinous Adenocarcinoma vs. Normal
TCGA Colorectal 2, No Associated Paper, 2011

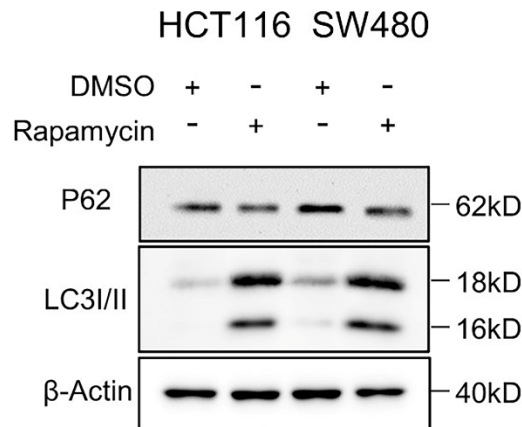


The rank for a gene is the median rank for that gene across each of the analyses.
The p-Value for a gene is its p-Value for the median-ranked analysis.

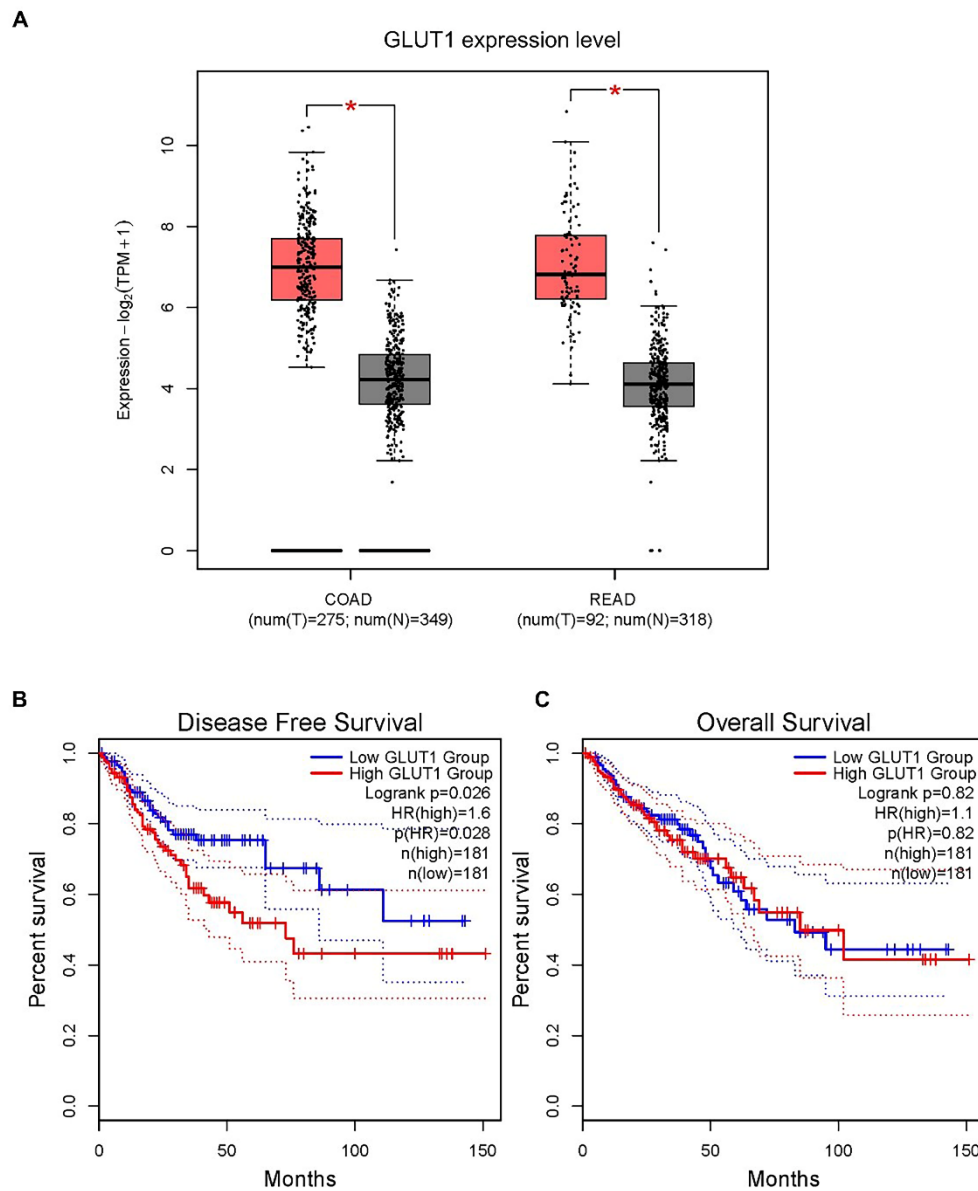
Supplement Figure 2 Efficiency analyses of TBK1-targeted siRNA (NC-siRNA, TBK1-si207, TBK1-si1310 and TBK1-si1953, 20 nM). The relative expression of TBK1 was quantified.



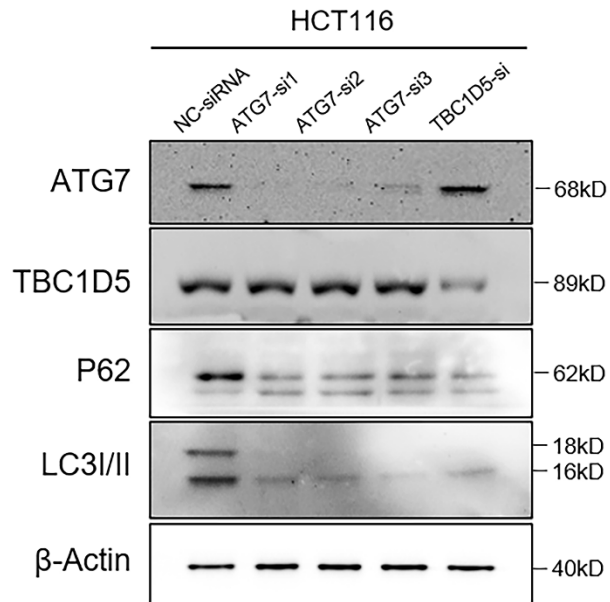
Supplement Figure 3 HCT116 and SW480 were treated with rapamycin (5 μ M) for 12 h, the lysis was blotted for P62, LC3I/II and β -Actin.



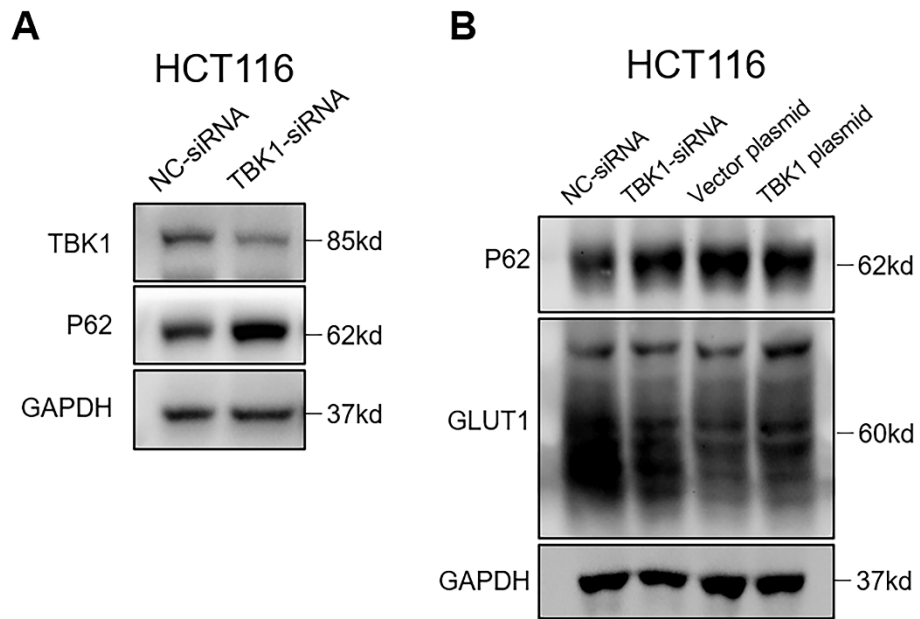
Supplement Figure 4 Expression of GLUT1 between normal and carcinoma tissues and the OS and DFS survival curves of CRC patients with high or low GLUT1 expression based on the TCGA database are shown. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.



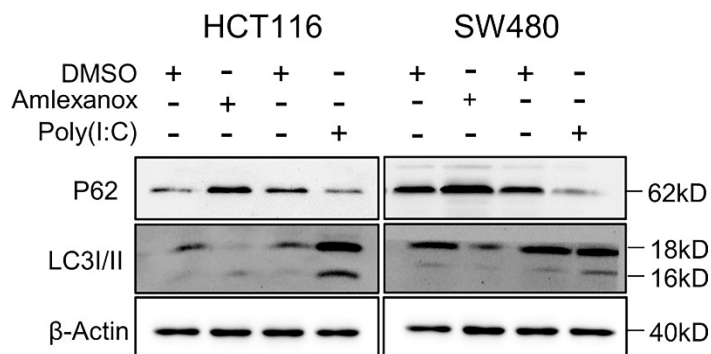
Supplement Figure 5 HCT116 were transfected with NC-siRNA, ATG-siRNA1, ATG-siRNA2, ATG-siRNA3 and TBC1D5-siRNA, the lysis were blotted for ATG7, TBC1D5, P62, LC3I/II and β -Actin.



Supplement Figure 6 (A) HCT116 was transfected with NC-siRNA and TBK1-siRNA, TBK1, P62 and GAPDH were blotted. (B) HCT116 cells were transfected with NC-siRNA, TBK1-siRNA, vector plasmid and TBK1^{WT} plasmid as indicated. WB analysis of P62, GLUT1 and GAPDH from whole-cell lysates.



Supplement Figure 7 HCT116 and SW480 cells were treated with Amlexanox (100 μ M) or poly (I:C) (2 μ g/ml) for 24 h, and the lysates were blotted for P62, LC3I/II, GAPDH.



Supplement Table 1. siRNA sequences applied in the study

NC	Sense: 5'- UUCUCCGAACGUGUCACGUTT -3'	Sense: 5'- ACGUGACACGUUCGGAGAATT -3'
FAM NC	Sense: 5'- UUCUCCGAACGUGUCACGUTT -3'	Sense: 5'- ACGUGACACGUUCGGAGAATT -3'
TBK1-homo-247	Sense: 5'- CCAAGGAGCUACUGCAAUUTT -3'	Sense: 5'- AUUUGCAGUAGCUCCUUGGTT -3'
TBK1-homo-1310	Sense: 5'- GGAACCUCUGAAUACCAUTT -3'	Sense: 5'- AUGGUAUUCAGAGGUUCCCTT -3'
TBK1-homo-1953	Sense: 5'-GACGCACUUUACAGAUGAATT-3'	Antisense: 5'-UUCAUCUGUAAAGUGCGUUCTT-3'

Supplement Table 2. Primer sequences applied in the study

GLUT1	F: 5'-GGCCAAGAGTGTGCTAAAGAA-3'	R: 5'- ACAGCGTTGATGCCAGACAG-3'
mTOR	F: 5'-TCCGAGAGATGAGTCAAGAGG-3'	R: 5'-CACCTTCCACTCCTATGAGGC-3'
S6K1	F: 5'-AGAACTTCTGGCTCGAAAGGT-3'	R: 5'-CGACAGGTGTCTGACGTGTAA-3'
Raptor	F: 5'-AATGCTGCAATCGCCTCTTCT-3'	R:5'-CCAAAGGTAGGTTCCAGTCTG-3'
TBK1	F: 5'-ATGATTTAGACGGGGATGCTAG-3'	R: 5'-GAAATTTACCTAACTCTGCCG-3'
18-S	F: 5'-GTAACCCGTTGAACCCATT-3'	R: 5'-CCATCCAATCGGTAGTAGCG-3'