
Supplementary information

Mitochondria play an important role in the cell proliferation suppressing activity of berberine

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Supplementary Information

Figure S1. Dose of BBR or rotenone for HepG2 cell viability. Cell number was determined with a hemocytometer. **(A).** HepG2 cell number after BBR treatment at the indicated dose for 24 h. Mean \pm SEM; NS no significant difference, n = 3. **(B).** HepG2 cell number after rotenone treatment at the indicated dose for 24 h. Mean \pm SEM; NS no significant difference, n = 3.

Figure S2. Mice body weight gain in the HepG2 xenograft model. (A). Mice body weight gain in the HepG2 xenograft model. Mean \pm SEM; *p < 0.05, n = 6.

Table S1. Primer sequences used in the experiment

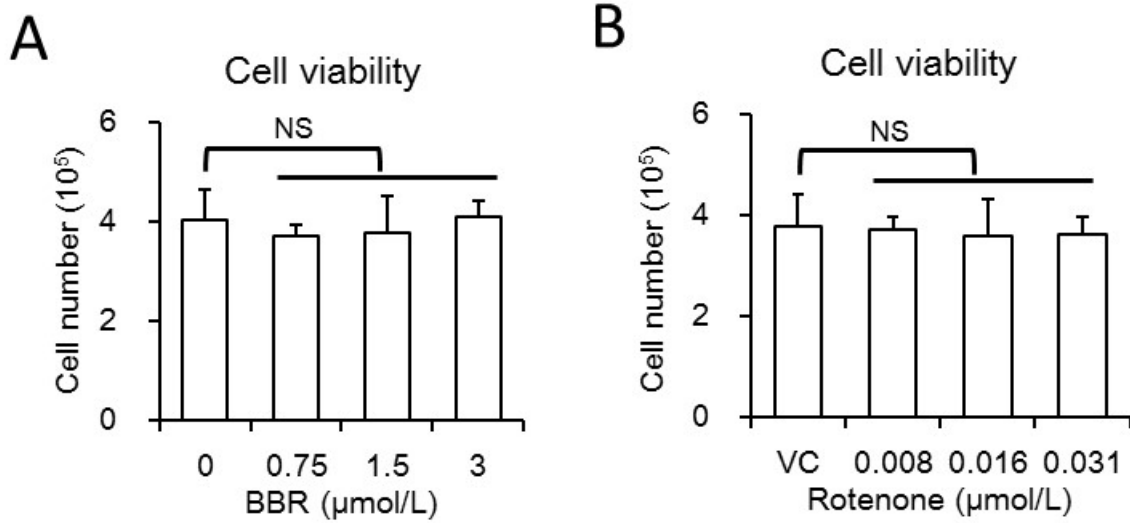


Figure S1. Dose of BBR or rotenone for HepG2 cell viability. Cell number was determined with a hemocytometer. **(A).** HepG2 cell number after BBR treatment at the indicated dose for 24 h. Mean \pm SEM; NS no significant difference, n = 3. **(B).** HepG2 cell number after rotenone treatment at the indicated dose for 24 h. Mean \pm SEM; NS no significant difference, n = 3.

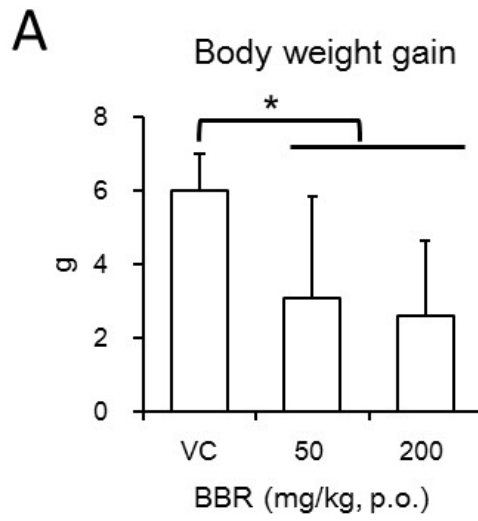


Figure S2. Mice body weight gain in the HepG2 xenograft model. (A). Mice body weight gain in the HepG2 xenograft model. Mean \pm SEM; * $p < 0.05$, $n = 6$.

Table S1. Primer sequences used in the experiment

Targeted sequence	Primer sequence	Product size(bp)
Human genome DNA	Sense 5'- TGCTGAGTCACCTTCGAACC-3'	562
	Anti-sense 5'- AGCATAACCTGACACCAGCC-3'	
Human mtDNA	Sense 5'- ACAATTCTCCGATCCGTCCC-3'	136
	Anti-sense 5'- GTGATTGGCTTAGTGGGCGA-3'	
Mouse genome DNA	Sense 5'- CCTATCAGTTCGGAGCCCAC-3'	586
	Anti-sense 5'- TGGAACTCACCCGTTACACAC-3'	
Mouse mtDNA	Sense 5'- AGCTCAATCTGCTTACGCCA-3'	150
	Anti-sense 5'- TGTGAGGCCATGTGCGATTA-3'	
Human β -actin	Sense 5'- AGGCTGGTCCTCCTATCGTT-3'	201
	Anti-sense 5'- AGGCTGGTCCTCCTATCGTT-3'	
Human OPA1	Sense 5'- GTGGTTGGAGATCAGAGTGCTG-3'	130
	Anti-sense 5'- GAGGACCTTCACTCAGAGTCAC-3'	
Human Mfn1	Sense 5'- GGTGAATGAGCGGCTTTCCAAG-3'	135
	Anti-sense 5'- TCCTCCACCAAGAAATGCAGGC-3'	
Human Mfn2	Sense 5'- ATTGCAGAGGCGGTTGCGACTCA-3'	104
	Anti-sense 5'- TTCAGTCGGTCTTGCCGCTCTT-3'	
Human DAPK2	Sense 5'- GCACCACAATGTCATCACGCTG-3'	125
	Anti-sense 5'- CCTCACTCAGTGACTCCTTCTG-3'	
Human Fis1	Sense 5'- CAAGGAACTGGAGCGGCTCATT-3'	124
	Anti-sense 5'- GGACACAGCAAGTCCGATGAGT-3'	
Human TFAM	Sense 5'- GAGCGTGCTAAAAGCACTGG -3'	238
	Anti-sense 5'- CCACAGGGCTGCAATTTTCC -3'	
Human HK2	Sense 5'- GAGTTTGACCTGGATGTGGTTGC-3'	130
	Anti-sense 5'- CCTCCATGTAGCAGGCATTGCT-3'	
Human GCK	Sense 5'- GGCCACCAAGAAGGAAAAGGT-3'	254
	Anti-sense 5'- CCTCTCCCACTTTGACCAGCA-3'	
Human PGI	Sense 5'- GTGTACCTTCTAGTCCCGCC-3'	159

	Anti-sense 5'- TGGTGTGAGGGTCAAGCTG-3'	
Human PFK1	Sense 5'- AAGAAGTAGGCTGGCACGACGT-3'	113
	Anti-sense 5'- GCGGATGTTCTCCACAATGGAC-3'	
Human ALDO1	Sense 5'- CCACGAGACCCTCTACCAGA-3'	253
	Anti-sense 5'- GATAGCGAGGCTGGATGGAC-3'	
Human TPI	Sense 5'- AACTGGAAGATGAACGGGCG-3'	143
	Anti-sense 5'- TTGGGATCTAGCTTCTGCCG-3'	
Human GADPH	Sense 5'- CTCTGCTCCTCCTGTTCGAC-3'	121
	Anti-sense 5'- GCGCCAATACGACCAAATC-3'	
Human PGK1	Sense 5'- CCACTGTGGCTTCTGGCATA-3'	166
	Anti-sense 5'- ATGAGAGCTTTGGTTCCCG-3'	
Human PGAM1	Sense 5'- GCTCTGCCCTTCTGGAATGAAG-3'	155
	Anti-sense 5'- ATACCAGTCGGCAGGTTTCAGCT-3'	
Human Eno1	Sense 5'- AGTCAACCAGATTGGCTCCGTG-3'	130
	Anti-sense 5'- CACAACCAGGTCAGCGATGAAG-3'	
Human PKLR	Sense 5'- CGGAAGGACACGGCATCAAGAT-3'	150
	Anti-sense 5'- GAGCCAGGAAAACCTTCTCTGC-3'	
Human PKM2	Sense 5'- AATGCAGTCCTGGATGGAGC-3'	228
	Anti-sense 5'- ACTGCAGCACTTGAAGGAGG-3'	
Human LDH α	Sense 5'- AGCTGTTCCACTTAAGGCC-3'	119
	Anti-sense 5'- AGGAATCGGGAATGCACGTC-3'	
Human PDHA	Sense 5'- GGATGGTGAACAGCAATCTTGCC-3'	148
	Anti-sense 5'- TCGCTGGAGTAGATGTGGTAGC-3'	
Human Cs	Sense 5'- CACAGGGTATCAGCCGAACCAA-3'	128
	Anti-sense 5'- CCAATACCGCTGCCTTCTCTGT-3'	
Human Aco2	Sense 5'- CAATCGTCACCTCCTACAACAGG-3'	133
	Anti-sense 5'- GTCTCTGGGTGAACTTGAGGG-3'	
Human IDH3A	Sense 5'- TCGGTGTGACACCAAGTGGCAA-3'	100
	Anti-sense 5'- TTCGCCATGTCCTTGCCTGCAA-3'	
Human OGDH	Sense 5'- GAGGCTGTCATGTACGTGTGCA-3'	140

	Anti-sense 5' - TACATGAGCGGCTGCGTGAACA-3'	
Human SUCLG1	Sense 5' - CAAACTCGTTGGAGGAACCACTC-3'	138
	Anti-sense 5' - GCAGCAAAAGGCGGAGGAACAT-3'	
Human SDHA	Sense 5' - GAGATGTGGTGTCTCGGTCCAT-3'	142
	Anti-sense 5' - GCTGTCTCTGAAATGCCAGGCA-3'	
Human FH	Sense 5' - CCGCTGAAGTAAACCAGGATTATG-3'	126
	Anti-sense 5' - ATCCAGTCTGCCATAACCACGAG-3'	
Human MDH2	Sense 5' - CTGGACATCGTCAGAGCCAACA-3'	106
	Anti-sense 5' - GGATGATGGTCTTCCCAGCATG-3'	
