

Additional file 2: Supplementary Tables

Expression of BAP1 modulates expression of long non-coding RNA NEAT-1 and contributes to sensitivity to gemcitabine in a BAP1-dependent manner in cholangiocarcinoma

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Table 1: BAP1 primer sequences for Sanger sequencing

Region	Primer sequence
BAP1 ex123F BAP1 ex123R	GACTCTGTGTGTGGGACTGAG AAGTATCAGTTTGATCAGGAG
ex 4F ex 4R	TTATGCTTTGCTCTGCCTG TATCTCCTCCTCCTGTCTTCC
ex5F ex5R	GACCAAAGATGAAAGGAGCTG ATGGTCTGACTTAAGGAAAC
ex678F ex678R	GACTCCACCCATAGTCCTACC GAACCCATGATCTAAGCC
ex9F ex9R	GACAGGTCTGCTGGTTCACTTC ATAATGGCCTTGGCTCTAC
ex10F ex10R	GACTTCCTTTAGGTCCTCAGC TTTAGGGAAGGACTGCTC
ex11F ex11R	TTTGCCCTGTCTCATTGC ACATTTAATCCCACAGCCAC
ex12F ex12R	GACCAAGGACAGGCCATGGAAC AACTCCGCAGGTGCTCAAC
ex13F ex13R	GACATGGCTAGTTCAAGTTGC AAATCATCAGAGTGCAGG
ex14F ex14R	GACTTTGGAGAGGATGACAGC AAGTCTTCTGGCACATGG
ex1516F ex1516R	GACTTCTCCTTTAATCCTGGCAG AGAGACCCTTGAGCAGGTG
ex17F ex17R	GACTGTCTTAACTGGAATGCC GAATGAAGAGAGAAGACCTG

Table 2: qPCR primer sequences

Identifier	Amplicon length	Forward primer	Reverse primer
BAP1 , NG_031859	103	5'GCCTGAGGAGTCCAAGTCAG3'	5'CTGGAGGCTTCACCACTAGC3'
Total NEAT1: NEAT1_1 (NR_131012) and NEAT1_2 (NR_028272)	160	5'GACGAGATTAGATGGGCTCTT CTG3'	5'CGACCAAACACAGAAAAGACA ACA3'
NEAT1_1 , NR_131012	130	5'CAGTTAGTTTATCAGTTCTCCC ATCCA3'	5'GTTGTTGTTCGTCACCTTTCAAC TCT3'
NDM29	98	5'GGCAGGCGGGTTGCTT3'	5'CCACGCCTGGCTAAGTTTTG3'
SNHG4 , NR_003141	132	5'CCCATCTGAAGGGAGGAAATA G3'	5'GGGTCCTGATGGAGGTAGAT3'
MER11C	108	5'AAACTTGCTGATTTTGTGGCTT 3'	5'TGTTGGCTGGTCTGTGAAATA3'
U6 , NR_004394	83	5'CTCGCTTCGGCAGCACAA3'	5'AACGCTTCACGAATTTGCGT3'
Beta-actin NC_000007.14	87	5'GGACTTCGAGCAAGAGATGG3'	5'AGCACTGTGTTGGCGTACAG3'

Table 3: BAP1 mutation status in CCA cell lines

Cell line	Mutation type	Location	Position	Amino acid	Database
HuCCT1	Heterozygous	Intron 4	G>A		rs3821840
KMBC	Homozygous	Intron 8	A		
CCLP1	Heterozygous	Exon 15	1946 G>A	649 Cys>Tyr	rs151308667
MzChA1	Homozygous	Exon 1	31 G>A	11 Asp>Asn	
	Heterozygous	Exon 13	1583 C>A	528 Ser>Tyr	
	Homozygous	3'UTR	C>T		

Table 4: HAP1 BAP1 CRISPR/Cas9 Knockout

Forward Primer	Reverse Primer	Sequencing Primer
CAATATCATGTGGTAGCATTCCCAG	AACATTAGGCAAAGATGAAAGGAGC	AACATTAGGCAAAGATGAAAGGAGC

Sequencing Result

AGGATGAAGGCACTGCAGCCTACCTCAGGGCTGAAACCCCTGNTGAAGTCCTTCATGCGACTCAGGGTGGGTCCCAGGTCC
ACGCTGCTGCAGTTCAGGAGCACGCTCAAATCAATGGAGTTCCCGAAAGTCCATGCATTCTACTCTCACGACAATGGATTCA
TTCCAAAAGGAGCATCTTGTGGGAGCCGCCTCCCTTTACAGGCATTACCCCAAGCAAGGCATGAGTTGCACAAGAGTTGG
GTATCAGCTGTGAAACCAAGAATAGTCACCCATACACAGCACCCCTCACTGCAAGCCCCAAGCCATATACATCAAGAATGG
GGATCCAGAGCAGGTCAGTCATATCTGGACAACTCCCCTTCTCAGCTCCTTTCATCTT

Table 5: R² value - Coefficient of Determination

Drug	HuCCT1	KMBC	HAP1 WT	HAP1 BAP1 KO
Gemcitabine	0.92	0.97	0.95	0.94
Cisplatin	0.60	0.87	0.92	0.97
Trichostatin A	0.95	0.81	0.95	0.96
Olaparib	0.91	0.84	0.91	0.97
GSK126	0.88	0.79	0.94	0.94
b-AP-15	0.91	0.95	0.92	0.95

Table 6: LncRNA expression profile in exogenously modulated BAP1 cells

LncRNA	si-BAP1 KD	c-BAP1-KD
MER11C	56.6	7.0
NDM29	15.3	9.9
NEAT-1	17.4	7.8
SNHG4	5.9	6.4