Supplementary Table 1 Primers used for transcriptomic profilings, ERAP1 promotor cloning, ERAP1 promotor sequencing, ERAP1 mutagenesis and ERAP1 genomic sequencing

primer name	sequence 5' to 3'	application	conditions
β-actin for	TCCTGTGGCATCCACGAAACT	real time PCR	60°C, 30 sec, 72°C, 30 sec, x 40
β-actin rev	GAAGCATTTGCGGTGGACGAT		
ERAP1 for	TCATCCTCCCAGAAGAGGTG		
ERAP1 rev	AACCTTGAAACACGGGCATA		
ERAP2 for	CCAAGCCAAGTTAGGTGATG		
ERAP2 rev	AGTGCAATATGCCTGCTCTC		
GAPDH for	CCTGCACCACCAACTGCTTA		
GAPDH rev	CTGAAGGCCATGCAAGTGAG		
IRF1 for	CTCCAGCACTGTCGCCATGT		
IRF1 rev	CCACTCCGACTGCTCCAAGA		
ERAP1_pro_for	CCCAAGCTTGAGATAGAAGGTAGGCACAAGACAC	ERAP1 promoter cloning	95°C, 10 sec, 60°C, 55 sec, 72°C, 60sec, x 34
ERAP1_pro_rev	CCCAAGCTTAAAGTGAAAGTGGAGCCCG		
E1Promotor2 for	GGG GAG TGA AGA AAT GGT CA	ERAP1 promoter sequencing	
E1Promotor2 rev	GCG CAA GAA AGA ATT TGA GG		
ERAP1Seq1for	TGGGCTGACTGGCTGTGA	ERAP1 mRNA sequencing	
ERAP1Seq2for	TCACAGCCAGTCAGCCCA		
ERAP1Seq3for	CAGAACCAAGGAAGGGGAA		
ERAP1Seq4for	ATTTCAGATTTTGAGTCTGTCAGC		
ERAP1Seq5for	TTGATGCACAAAAGTCTTCTGC		
ERAP1Seq6for	CCCTGTGTCTACACCTGTGG		
ERAP1Seq7for	AGTCAACATTCATCTTCATCCTCA		
ERAP1Seq8for	CAAAAACAGATGTGCTCATCCT		
ERAP1Seq9for	AACTGAAATTATGCCCGTGTTT		
ERAP1Seq10for	TTCAGAAAGTGGAAGGAATCCA		
ERAP1Seq11for	AAATTCTTACACTCATTGGCAGG		
ERAP1Seq12for	AAACATCGGTTGGATGGATAAG		
ERAP1Seq1rev	CTCTCTCCAGCTCCCTTCCT		
cloning ERAP1 F	AAAGGATCCAAGAAGATGGTGTTTCTG	ERAP1 cloning	95°C, 5 min, 95°C, 30 sec, 60°C, 3 min, x 40
cloning ERAP1 R	TTTCTCGAGGAATTTTTACATACGTTC		
mutageneseERAP1_akt for	CATCACAATGACTGTGGCCCATGCACTGGCTC	mutagenesis	95°C, 1 min, 50°C, 50 sec, 60°C, 50 sec, 68°C, 7 min, x 18 4°C for ever
mutageneseERAP1_akt rev	CCAAACCACTGGTGAGCCAGTGCATGGGCC		
mutageneseERAP1_349 for	CAAGTAAGCTTGGCATCACAGTGACTGTGGCCCATGAACTGGC		
mutageneseERAP1_349 rev	GCCAGTTCATGGGCCACAGTCACTGTGATGCCAAGCTTACTTG		
Colo857Prom_Mut for	CTTCCTACGCCTGATCCCCCACATCGCAACCTCGCAGCTTCC		
Colo857Prom_Mut rev	GGAAGCTGCGAGGTTGCGATGTGGGGGATCAGGCGTAGGAAG		

primer name	sequence 5' to 3'	application	conditions
E1Exon 1 for	TGTGAATGCTGGGTGGATAC	ERAP1 genomic sequencing (amplification of exons)	DNA 98°C, 10 sec, 60°C, 55 sec, 72°C, 60 sec, x 40
E1Exon 1 rev	AAGCAAGGGAAAAAGCCATT		
E1Exon 2 for	CCTGTTTTAGAGTTCCTGGTGC		
E1Exon 2 rev	CTGGGCTAGTGCAAGTCACA		
E1Exon 3 for	GGAGTGCAGTGGCTCAATCT		
E1Exon 3 rev	GGCTGGAGTGCACAATCA		
E1Exon 4 for	ATGTGGGGAGAGAAGCCAG		
E1Exon 4 rev	AGGGTGAGGAGATGCTCAGA		
E1Exon 5 for	TTAGTGTTTGGGAGAATGTATAGCTT		
E1Exon 5 rev	TCAGTTCAGGATGGGTCACA		
E1Exon 6 for	TGAGTGTCTTTGTTTATGGCTTATG		
E1Exon 6 rev	CTGCAATGAGCAACCTGAAG		
E1Exon 7 for	TAACTAAAATCATTGTTTCTTGGGTAG		
E1Exon 7 rev	CCAGCACGTGTCAAGAGAGA		
E1Exon 8 for	GTTTAACCTGCTTACTCTGTTTCACA		
E1Exon 8 rev	AGCTCTGCAACCCTCCAGTA		
E1Exon 9 for	ATGGCAAGTGTGAGTATGTTTTTG		
E1Exon 9 rev	AGCTCTGCAACCCTCCAGTA		
E1Exon 10 for	TTTCTTAGAGTTGGGTTAAATGGG		
E1Exon 10 rev	ATGGGGGCAGGGAGTATAAG		
E1Exon 11 for	ACAGACTGGGGATGTTTTGAG		
E1Exon 11 rev	AATAAACCGCGACTTTGTGC		
E1Exon 12 for	TCACAAAATTGATGTCTAAAGCTAG		
E1Exon 12 rev	AATAAACCGCGACTTTGTGC		
E1Exon 13 for	CAGCCTCCCACATACCAAGTA		
E1Exon 13 rev	TCAGGATGAATTGCGACTTTT		
E1Exon 14 for	TCCAGCATTTGTTGTTGTTTTC		
E1Exon 14 rev	CCTCTTCCCTCTGCTGTCTG		
E1Exon 15 for	TTTATATTTCCAGGCATGCTTCTC		
E1Exon 15 rev	GGGAACCATGAACTTGGATG		
E1Exon 16 for	GGGAGAACCAGGTGTTAGGA		
E1Exon 16 rev	TGACAGAAGCAGGAAATGCT		
E1Exon 17 for	TCTTTTGAGCAAATGAGAGGGT		
E1Exon 17 rev	GGGAACCATGAACTTGGATG		
E1Exon 18 for	AATCCTATTCAGACAGCTGGGA		
E1Exon 18 rev	CATGGTAGCGATAGCCCATT		
E1Exon 19 for	CATGGGGACTTTCTTCATTGT		
E1Exon 19 rev	TTACATGCTGTGAGGCAAGG		