

Table SI. Primer sequences for PCR.

Target gene	Primer target	Sequence (5'→3')
<i>APC</i>	Exon 2F	CTCTTAGATGCTGCTACTTGA
	Exon 2R	GGATAGAACCAGGTA CTGAC
	Exon 3F	ACAGAGACTCCCCATAATCA
	Exon 3R	GACTGGCAGAATAGCAACAA
	Exon 4F	GTTGCTTGAAAATTCCAGTG
	Exon 4R	GCTCTAAGTGTTAGCTATCAC
	Exon 5F	AGCCTTTGGTGAAGTGTAAG
	Exon 5R	TTGAACCCTGAGGTCTCTA
	Exon 6F	TAACCTCACTCTAACTGGAC
	Exon 6R	GAAGACCACCATCTAACTCT
	Exon 7F	TGATTTGACATAACCCTGAGC
	Exon 7R	ACCTTCCCTGGTCTTAATGC
	Exon 8F	GGATGGCATTCTGTGAGTC
	Exon 8R	GCAAACCTATTCAAGGCAAGC
	Exon 9F	CTGCAGTTTAATGCTCATATGC
	Exon 9R	GCAAAGTAGTCATGGCATTAGT
	Exon 10F	CAGTTTGTTAGTGAGTATGC
	Exon 10R	GCACATAACATTTTCCTTTG
	Exon 11F	ACTTAGTCAAGGGCAGATGA
	Exon 11R	GCTGATAACAGAAGTTGGTG
	Exon 12F	GGAGAACTGGCATAAAATGG
	Exon 12R	TCTACTACTGTGTTCCATCTG
	Exon 13F	ACTTGTAGGGATCATTCTGTG
	Exon 13R	ATTGCACA ACTGCCCTCTAA
	Exon 14F	CAGTAACCTCAAGCTCCTGG
	Exon 14R	CGAGACCAGCCTTACCAACA
	Exon 15F	AAGTTCTTAATTTACCAGTG
	Exon 15R	GTAGTTATCTTTTCACAGTA
	Exon 16-1F	ATTGGGT CAGAATAGGAAATG
	Exon 16-1R	TCTGTTGCTGGATGGTAGTT
	Exon 16-2F	GTCCCAAGGCATCTCATCGT
	Exon 16-2R	GCTGGGTATTGACCATAACTGC
	Exon 16-3F	ATAGTGT CAGTAGTAGTGATGG
	Exon 16-3R	GACACAAAGACTGGCTTACA
	Exon 16-4F	ATCGAGTGGGTTCTAATCATGG
	Exon 16-4R	TGGA ACTTCGCTCACAGGAT
	Exon 16-5F	ATCCAAGTTCTGCACAGAGT
	Exon 16-5R	CTCTGAACTGCAGCATTTAC
	Exon 16-6F	GCTCAAACCAAGCGAGAAGT
	Exon 16-6R	TCTGCCTTCTGTAGGAATGG
	Exon 16-7F	TGCTGGAGAAGGAGTTAGAG
	Exon 16-7R	GGTTGGAGGTTAGTTCTGTG
	Exon 16-8F	GATGATGTTGACCTTTCCAG
Exon 16-8R	CATTATCACCTTGAGTCTTG	
Exon 16-9F	ATCAGGCTATGCTCCTAAATCA	
Exon 16-9R	TTTCACAGATGGCTTGGCTC	
Exon 16-10F	GATTCATATTCCAGGAGTTCCG	
Exon 16-10R	GGCATTCTTGGATAAACCTG	
Exon 16-11F	TGAGCCAACAGAACCTTACC	
Exon E16-11R	AGGAAACGGTCTGAGAAGTAC	
Exon 16-12F	CTCTATTT CAGGAACCAAAC	
Exon 16-12R	CCTCTAACAAGAATCAAACC	
<i>CTNNB1</i>	Exon 2F	GTGGTTGAGGTGTCTGGAGG
	Exon 2R	GCTGGTGGCTTGTGTTGCTAT
	Exon 3F	ATTTTCTGCTCACTCCTCCT
	Exon 3R	CATGCCCTCATCTAATGTCTC
	Exon 4F	CTGAGGAAGAGGATGTGGAT
	Exon 4R	ATGATAGCGTGTCTGGAAGC
	Exon 5+6F	CATGCAGATCCCATCTACACAG

Table SI. Continued.

Target gene	Primer target	Sequence (5'→3')
<i>MUTYH</i>	Exon 05+6R	CATCCAGAAACCATTCCCAC
	Exon 7F	ATAGGTTGGTAATATGGCTCT
	Exon 7R	CTGAATGTAAATCTTGGCTG
	Exon 8+9F	GAAGGACACCTCCTAAGGCT
	Exon 8+9R	TTAGACAGCCATCCAACAGC
	Exon 10F	CTCTTACACCCACCATCCCA
	Exon 10R	GCCTTATTTTCTCTGCAGCC
	Exon 11F	AGTTACGGGGAACTTCGGGTA
	Exon 11R	TCTATGCCCTGCCTCTGGCA
	Exon 12+13F	AGCATTAAACACCCCAAGAC
	Exon 12+13R	GGAAAGAACAAGCTGCCATA
	Exon 14F	GCATTTGTGTAATGTTGGAG
	Exon 14R	CATGTATTTGTTGGTGGTGT
	Exon 15F	TAATGATGTGACTAGGCCCT
	Exon 15R	TCCAAGACATCTCCTTTCAA
	Exon 1F	AAACTGCGCCATCGTCACTG
	Exon 1R	GGCCCACGCTGATGAAGACA
	Exon 2F	CTTTCATCCTTGACCCATCC
	Exon 2R	GGGCCACAACCTAGTTCCTT
	Exon 3F	GGTCTGACTCCAGCTCCAAA
	Exon 3R	GTCCAGGTCCATCTCATCTT
	Exon 4+5F	TAAGCTGGTACGACCAAGAG
	Exon 4+5R	AGACAAGGTCAAGGGTGAAG
	Exon 6+7F	ACCCAGGTTGCCACTGTGAT
	Exon 6+7R	CCAAAGGCGATAGAGGCAAT
	Exon 8+9F	ATAGAGGGACTGACGGGTGA
	Exon 8+9R	AAGGGAACACTGCTGTGAAG
	Exon 10+11F	GCAGCTCTGGTAGGATGTTG
	Exon 10+11R	CGAACCTACTCAAGCCAAG
	Exon 12F	CCCCATTCCAGTTCTTCCTC
	Exon 12R	AGCTGCCGATTCCCTCCATT
	Exon 13F	GGCAGTGGCATGAGTAACAA
	Exon 13R	TGGCTATTCCGCTGCTCACT
	Exon 14F	TACCTGGATACTGGGCGTGGAG
Exon 14R	GCCTGGGCAACAGAGCGATT	
Exon 15F	ACTGGGACATGAAGTTAAGGG	
Exon 15R	TTCACCCAGACATTCGTTAG	
Exon 16F	GAGGGTTGATTGATGGGGCA	
Exon 16R	CACTTTTCTGGGTCCCTCCC	

PCR, polymerase chain reaction; APC, adenomatous polyposis coli; CTNBI, β -catenin; MUTYH, MutY DNA glycosylase.