

Supplement Table S1. Details of *BMP2* mutations (Transcript is NM\_001204)

patient	Mutation Location	Mutation Category	Nucleotide Change	Amino Acid Change
1	Exon1	—	(G-A)-669 to initiation codon	—
2	Exon1	Deletion	c.36delC	p.Trp13GlyfsTer34
3	Exon1	Splice-site	c.76+1G>C	—
4	Exon3	Missense	c.347G>C	p.C116S
5	Exon3	Missense	c.350G>A	p.C117Y
6	Exon3	Missense	c.371A>G	p.N124S
7	Exon4	Frameshift	c.458delT	p.I153Mfs*9
8	Exon5	Splice-site	c.621+8T>C	—
9	Exon5	Splice-site	c.621+8T>C	—
10	Exon6	Nonsense	c.631C>T	p.R211X
11	Exon6	Nonsense	c.637C>T	p.R213X
12	exon7	Deletion	c.865_876del	p.289_292del
13	exon7	Missense	c.877C>T	p.L293F
14	exon7	Missense	c.893G>A	p.W298X
15	Exon8	Splice-site	c.968-1G>T	—
8	Exon8	Missense	c.1042G>A	p.V348I
16	Exon8	Frameshift	c.1122dupA	p.S375Kfs*23
17	Exon9	Nonsense	c.1141A>T	p.R381X
18	Exon9	Missense	c.1226 T>G	p.L409R
19	Exon9	Missense	c.1228G>A	p.Gly410Arg
20	Exon10	Frameshift	c.1269_1372delAAAC	p.K457Rfs*16
21	Exon10	Deletion	c.1305_1307delTTTinsG	p.F436Sfs*11
22	Exon10	Frameshift	c.1367dupA	p.Q458Tfs13
23	Exon11	Nonsense	c.1429A>T	p.K477X
24	Exon11	Missense	c.1460A>G	p.D487G
25	Exon11	Missense	c.1472G>A	p.Arg491Gln
26	Exon12	Nonsense	c.2617C>T	p.Arg873Ter
27	Exon12	Frameshift	c.2619delA	p.E874Sfs22