

**Supplementary Table S1.** Pathogenic mutations identified in the analyzed MBC series.

<b>ID case</b>	<b>Gene</b>	<b>Variant type</b>	<b>Nucleotide change*</b>	<b>Protein change</b>
#17	<i>BRCA1</i>	Large deletion	Del exons 21_24	-
#2	<i>BRCA1</i>	Frameshift	c.3228_3229del	p.Gly1077AlafsTer8
#31	<i>BRCA1</i>	Frameshift	c.2679_2682del	p.Lys893AsnfsTer106
#60	<i>BRCA1</i>	Frameshift	c.4964_4982del	p.Ser1655TyrfsTer16
#63	<i>BRCA1</i>	Large deletion	Del exons 1_23	-
#66	<i>BRCA1</i>	Stop gain	c.5266dup	p.Gln1756ProfsTer74
#14	<i>BRCA2</i>	Splice acceptor variant	c.632-2A>G	-
#18	<i>BRCA2</i>	Stop gain	c.9382C>T	p.Arg3128Ter
#19	<i>BRCA2</i>	Frameshift	c.6626_6627del	p.Ile2209ArgfsTer15
#21	<i>BRCA2</i>	Stop gain	c.7480C>T	p.Arg2494Ter
#25	<i>BRCA2</i>	Frameshift	c.5796_5797del	p.His1932GlnfsTer12
#26	<i>BRCA2</i>	Large deletion	Del exons 14_16	-
#28	<i>BRCA2</i>	Stop gain	c.9382C>T	p.Arg3128Ter
#29	<i>BRCA2</i>	Frameshift	c.2760del	p.Ile921PhefsTer39
#30	<i>BRCA2</i>	Frameshift	c.5722_5723del	p.Leu1908ArgfsTer2
#36	<i>BRCA2</i>	Stop gain	c.289G>T	p.Glu97Ter
#61	<i>BRCA2</i>	Stop gain	c.6037A>T	p.Lys2013Ter
#62	<i>BRCA2</i>	Frameshift	c.7940_7941insC	p.Ser2648LysfsTer14
#64	<i>BRCA2</i>	Frameshift	c.6743_6755del	p.His2248LeufsTer28
#65	<i>BRCA2</i>	Frameshift	c.2760del	p.Ile921PhefsTer39
#67	<i>BRCA2</i>	Frameshift	c.8247_8248del	p.Lys2750AspfsTer13
#70	<i>BRCA2</i>	Frameshift	c.9098_9099insA	p.Gln3034fs
#68	<i>PALB2</i>	Frameshift	c.2167_2168delAT	p.Met723ValfsTer21
#71	<i>PALB2</i>	Stop gain	c.1984A>T	p.Lys662Ter
#69	<i>RAD50</i>	Frameshift	c.1238_1241delAACT	p.Gln413ArgfsTer2
#56	<i>RAD51D</i>	Frameshift	c.293delA	p.Asp98ValfsTer25

\*Based on *BRCA1* NM\_007294.3, *BRCA2* NM\_000059.4, *PALB2* NM\_024675.3, *RAD50* NM\_005732.3, *RAD51D* NM\_001142571.1