

**Supplementary Table 1. Primers for PTEN gene and annealing temperature**

Exon	Forward	Reverse	Product size	Annealing Temperature (°C)
1	CTCTGGCTGCTGAGGAGAAG	CCAGGCAAGAGTTCCGTCTA	493	57
2	CTCCAGCTATAGTGGGAAAAC	CTGTATCCCCCTGAAGTCCA	376	57
3	CCATAGAAGGGGTATTTGTTGG	ATGGGCTCAAATATGGGCTA	471	57
4	GAAAGCATGGAAGCACCTG	GCTGCACTTTAGTCTTCCTGAC	561	57
5	GGGAAAATAATACCTGGCTTC	CACCTCAATAAAACTGAAGGAAAA	568	57
6	TGCTCTTATTTATTATTGAGCTGGA	CCTGCATAAATTTCAAATGTGG	425	57
7	GCTTGAGATCAAGATTGCAGATACAG	GTCTCACCAATGCCAGAGTAAGCA	446	57
8	TCATGTGAATGAAAATGCAACA	ACGTAAACACTGCTTCGAAATAA	572	57
9	GTTGCAGTGAGCCAAGATCA	CAAGTGTCAAAACCTGTGG	682	57

**Supplementary Table 2. *PTEN* and *NOTCH1* mutations in 52 patients of the study cohort consisting of 301 children with T-ALL**

No	Exon	Nucleotide Change	Predicted Protein change	<i>NOTCH1</i> mutation	
				HD	PEST
1	1	56_57 het_insGT	Frameshift stop at 24	No	No
2	4	233_234 het_insTA	Frameshift stop at 99	Yes	No
3	7	697_698 het_ins A	Frameshift stop at 242	No	No
4	7	743_744 het_ins CGCCAACGTTACC	Frameshift stop at 251	No	No
	4	223_224 het_delA	Frameshift stop at 166		
5	7	692_693 het_ins TGCT	Frameshift stop at 242	yes	Yes
6	7	754_755 het_ins GTGGT	Frameshift stop at 257	No	Yes
7	7	749_750 het_ins GCCCT	Frameshift stop at 255	No	No
8	7	755_756 het_ins C	Frameshift stop at 298	Yes	No
9	7	645_646 het_ins T	Frameshift stop at 242	No	No
10	7	717_718 het_ins TCCT	Frameshift stop at 242	Yes	No
11	7	743_744 het_ins AGTTACC	Frameshift stop at 251	No	No
12	7	635_652 het_del ATCCTCAGTTTGTGGT	Frameshift stop at 215	No	No
13	7	743_744 het_ins CGCCAACGTTACC	Frameshift stop at 255	No	No
14	7	724_725 het_ins TCCTTAG	Frameshift stop at 254	No	No
15	7	724_725 het_ins TCCTTAA	Frameshift stop at 254	Yes	Yes
16	7	714_715 het_ins TGTACTT	Frameshift stop at 244	No	No
17	7	682_690 het_del TATATTCCT & 697_698 het_ins A	Frameshift stop at 242	No	No
18	7	738_739 het_del TTACCTGTGTGTGGTGA	Frameshift stop at 293	No	No
19	7	743_744 het_ins CGCCAACGTTACC	Frameshift stop at 251	No	No
20	7	707_708 het_ins G	Frameshift stop at 242	No	No
21	7	737_738 het_ins TCGTACCG	Frameshift stop at 258	Yes	No
22	7	650_651 het_ins T	Frameshift stop at 242	No	No
23	7	694_695 het_ins AGTAGGATG	Frameshift stop at 233	No	Yes
24	7	737_738 het_del GTTA	Frameshift stop at 254	No	No
	5	415_415 het_delTATT	Frameshift stop at 403		
25	7	696_697 het_ins A	Frameshift stop at 242	No	No
26	7	650_651 het_ins G	Frameshift stop at 242	No	No
27	7	678_679 het_ins T	Frameshift stop at 242	No	No
28	7	702_703 het_ins AGGA	Frameshift stop at 242	Yes	No
29	7	696_697 het_ins G	Frameshift stop at 242	No	Yes
30	7	700_701 het_ins CGCTCGAC	Frameshift stop at 257	No	No
31	7	692_693 het_ins CCACACAG	Frameshift stop at 258	No	No
32	7	753_754 het_ins CACGTGCG	Frameshift stop at 255	No	No
33	7	794_795 het_ins G	Frameshift stop at 242	No	No
34	7	672_673 het_ins T	Frameshift stop at 242	No	No
35	7	694_706 het_del ACACGACGGGAAG	Frameshift stop at 251	No	Yes
36	7	734_735 het_ins TGAGTTCCTCAG	Frameshift stop at 251	No	Yes
37	7	714_715 het_ins TTCATTACTTAA	Stop at 242	No	No
38	7	734_735 het_ins TTAGTTCCTCAG	Frameshift stop at 246	No	No
39	7	705_706 het_ins C	Frameshift stop at 242	Yes	No
40	7	652_653 het_ins A	Frameshift stop at 218	No	No
41	7	716_717 het_ins C	Frameshift stop at 242	No	No
42	7	697_698 het_ins G	Frameshift stop at 242	No	No
43	7	696_697 het_ins GGGACTTA& 709_710 het_ins GAAAGCCA	Frameshift stop at 247	Yes	No
	1	13_14 het_ins A	Frameshift stop at 10		
44	7	708_709 het_ins CGAAAGCC	Frameshift stop at 258	Yes	No
45	7	736_737 het_ins AG	Frameshift stop at 258	Yes	No
46	7	737_738 het_ins TA	Frameshift stop at 255	No	No
47	7	734_735 het_ins TAACTTGTTTG	Frameshift stop at 259	No	No
48	7	699_700 het_ins T	Frameshift stop at 242	No	Yes
49	7	739_740 het_ins AAGG	Frameshift stop at 247	No	No
	5	380_381 het_del AAAGGGA	Frameshift stop at 135		
50	7	738_742 het_ins ATAACGTG	Frameshift stop at 257	Yes	No
51	7	685_686 het_ins CAGGACCCAG	Frameshift stop at 245	No	No
52	7	736_737 het_ins T	Frameshift stop at 252	Yes	No

Abbreviations: het\_ins: Heterozygous insertion; het\_del: Heterozygous deletion