

**S17 Table.** Variant allele frequencies of mutations in genes observed in the Pan-Cancer Atlas

KMT2A	Chr11:118392633C>T	-	-	4%	-	-	-	-	-	-	-	-	-	-	-
KMT2C	Chr7:151860195T>C	-	-	-	20%	-	-	-	-	-	-	-	-	-	-
	Chr7:151900065C>T	-	-	-	-	-	-	-	-	-	-	-	-	7%	-
KMT2D	Chr12:49421001C>G	-	-	-	-	-	-	-	-	-	-	-	4%	8%	6%
	Chr12:49434924G>A	-	-	-	6%	-	-	-	-	-	-	-	-	-	-
MACF1	Chr1:39789920G>T	-	-	-	13%	-	-	-	-	-	-	-	-	-	-
	Chr1:39816665C>A	-	-	-	-	-	-	-	-	-	-	-	-	4%	-
MAP2K4	Chr17:11924258G>T	-	-	-	-	-	-	-	-	-	-	-	-	-	6%
NOTCH1	Chr9:139391412C>A	-	-	-	-	-	-	-	-	-	-	-	-	6%	-
PMS1	Chr2:190728499A>G	-	-	-	-	-	-	23%	27%	-	-	-	-	-	-
POLE	Chr12:133225936T>C	-	-	-	-	-	-	-	5%	-	-	-	-	-	-
PPP2R1A	Chr19:52719872A>G	-	-	-	-	-	4%	-	-	-	-	-	-	-	-
	Chr1:198685925G>A	-	-	-	-	-	-	-	-	-	10%	-	-	-	-
PTPRC	Chr1:198697486A>G	-	-	-	26%	-	-	-	-	-	-	-	-	-	-
	Chr1:198697487T>A	-	-	-	25%	-	-	-	-	-	-	-	-	-	-
	Chr1:198697488A>T	-	-	-	25%	-	-	-	-	-	-	-	-	-	-
RARA	Chr17:38508267G>A	-	-	-	-	-	-	-	-	-	-	-	-	5%	-
RASA1	Chr5:86679584C>A	-	-	-	-	-	-	7%	-	-	-	-	-	-	-
SCAF4	Chr21:33068925C>A	-	-	-	12%	-	-	-	-	-	-	-	-	-	-
SF1	Chr11:64534424G>T	-	-	-	10%	-	-	-	-	-	-	-	-	-	-
SF3B1	Chr2:198257908G>A	-	-	-	-	-	-	-	-	-	-	22%	-	-	-
USP9X	ChrX:40990736C>T	-	-	-	20%	-	-	-	-	-	-	-	-	-	-
	ChrX:41073844C>T	-	-	-	12%	-	-	-	-	-	-	-	-	-	-
WT1	Chr11:32421536G>C	-	-	-	9%	-	-	-	-	-	-	-	-	-	-

AAH, atypical adenomatous hyperplasia; AIS, adenocarcinoma in situ; MIA, minimally invasive adenocarcinoma; ADC, adenocarcinoma.