

PI3K α (E545K/+) Cell line Engineering Summary

Genotype	rs #	Cosmic ID	Position			
			Chromosome Number	Chromosome	Gene	Transcript
PI3K α (E545K/+)	rs104886003	COSM763	3q26.3	g.178936091G>A (GRCh37) g.179218303G>A (GRCh38)	g.74781G>A	c.1633G>A

Protein	Base change	Context	AA change
p.Glu545Lys	GAG \Rightarrow AAG	TGAAATCACT (G>A) AGCAGGAGAA	E [Glu] \Rightarrow K [Lys]

Reference sequence: Ensembl transcript PIK3CA-001 ENST00000263967

catcctctagtatcctaactctggtcttgttggctaacctcagcagttactattctgtgactggtgtaatt
 aaccaataaattactggatttgttctacaaatattatgtcttagattggttctttcctgtctctgaaataaag
 tcttgcaatgaaataaattatcttacaacagttattagcaatgtaaatttattgaaatgtatttgctttt
 ctgtaaatca] [tctgtgaatccagaggggaaaaatatgacaaagaaagctatataagatattttttat
 cagAGTAACAGACTAGCTAGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGA
 GATCCTCTCTGAAATCACT (**G>A**) AGCAGGAGAAAGATTTTCTATGGAGTCACAGgtaagtgcataaatgg
 agattctctgtttctttttctttattacagaaaaataactgaatttggctgatctcagcatgtttttaccatac
 ctattggaataaataaagcagaatttacatgatttttaactataaacattgcctttttaaaaacaatggttgta
 aattgatatttgtggaaaatcactactacattggttagttggcacattaaatgctttttcttactctgaattcctga
 tatgacttcttttaggattgtttaaataattctagtagttttaggtcaatttagatgtgatttagttggtctaga
 tattataatttttaggggttcctttcatttttctttttctta

Lowercase **blue** sequence indicates intron

Uppercase **BLACK** sequence indicates exon coding sequence

]] indicates the site of engineering

(G>A) indicates the E545K mutation

Contact Horizon Diagnostics

Please note that primers designed upstream or across the engineering site will have a reduced efficiency and your assay may fail. Please contact us at technical@horizondx.com if you have any questions.

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