

## TBK1 mutation induces ferroptosis

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hTBK1.seq .....
hTBK1-c978T_A.seq GTCAGATCGCCTGGAGACGCCATCCAGCTGTTTTG
Consensus

hTBK1.seq .....
hTBK1-c978T_A.seq CCATAGAAGACACCGACTCTACTAGAGGATCTATTT
Consensus

hTBK1.seq .....ATGCAGAGCACTTCTAATCATCT
hTBK1-c978T_A.seq TGAATTCCTCGAGATGCAGAGCACTTCTAATCATCT
Consensus atgcagagcacttctaatacatct

hTBK1.seq CTTTTATCTGATATTTTAGGCCAAGGAGCTACTGCA
hTBK1-c978T_A.seq CTTTTATCTGATATTTTAGGCCAAGGAGCTACTGCA
Consensus cttttatctgatatttttaggccaaaggagctactgca

hTBK1.seq TCTTTCGTGGAAGACATAAGAAAACCTGGTGATTAT
hTBK1-c978T_A.seq TCTTTCGTGGAAGACATAAGAAAACCTGGTGATTAT
Consensus tctttcgtggaagacataagaaaactggtgatttat

hTBK1.seq TATCAAAGTATTTAATAACATAAGCTTCCTTCGTCC
hTBK1-c978T_A.seq TATCAAAGTATTTAATAACATAAGCTTCCTTCGTCC
Consensus tatcaaagtatttaataacataagcttccttcgtcc

hTBK1.seq GATGTTCAAATGAGAGAATTTGAAGTGTGAAAAA
hTBK1-c978T_A.seq GATGTTCAAATGAGAGAATTTGAAGTGTGAAAAA
Consensus gatgttcaaatgagagaatttgaagtgtgaaaaa

hTBK1.seq ATCACAAAAATATTGTCAAATTATTGCTATTGAAG
hTBK1-c978T_A.seq ATCACAAAAATATTGTCAAATTATTGCTATTGAAG
Consensus atcacaaaaatattgtcaaattatttgctattgaag

hTBK1.seq GACAACAACAAGACATAAAGTACTTATTATGGAATT
hTBK1-c978T_A.seq GACAACAACAAGACATAAAGTACTTATTATGGAATT
Consensus gacaacaacaagacataaagtacttattatggaatt

hTBK1.seq CCATGTGGGAGTTTATACACTGTTTTAGAAGAACCT
hTBK1-c978T_A.seq CCATGTGGGAGTTTATACACTGTTTTAGAAGAACCT
Consensus ccatgtgggagtttatacactgttttagaagaacct

hTBK1.seq ATGCCTATGGACTACCAGAATCTGAATCTTAATTG
hTBK1-c978T_A.seq ATGCCTATGGACTACCAGAATCTGAATCTTAATTG
Consensus atgcctatggactaccagaatctgaattcttaattg

hTBK1.seq GCGAGATGTGGTGGGTGGAATGAATCATCTACGAGA
hTBK1-c978T_A.seq GCGAGATGTGGTGGGTGGAATGAATCATCTACGAGA
Consensus gcgagatgtgggtgggtggaatgaatcatctacgaga

hTBK1.seq GGTATAGTGCACCGTGATATCAAGCCAGGAAATATC
hTBK1-c978T_A.seq GGTATAGTGCACCGTGATATCAAGCCAGGAAATATC
Consensus ggtatagtgcaccgtgatatcaagccaggaaatatc

hTBK1.seq GTGTTATAGGGGAAGATGGACAGTCTGTGTACAAAC
hTBK1-c978T_A.seq GTGTTATAGGGGAAGATGGACAGTCTGTGTACAAAC
Consensus gtgttataggggaagatggacagtctgtgtacaaac

hTBK1.seq AGATTTGGTGCAGCTAGAGAATTAGAAGATGATGA
hTBK1-c978T_A.seq AGATTTGGTGCAGCTAGAGAATTAGAAGATGATGA
Consensus agatttgggtgcagctagagaattagaagatgatga

hTBK1.seq TTTGTTTCTCTGTATGGCACAGAAGATATTIGCAC
hTBK1-c978T_A.seq TTTGTTTCTCTGTATGGCACAGAAGATATTIGCAC
Consensus tttgtttctctgtatggcacagaagatatttgcac

hTBK1.seq ATATGTATGAGAGAGCAGTGCTAAGAAAAGATCATC
hTBK1-c978T_A.seq ATATGTATGAGAGAGCAGTGCTAAGAAAAGATCATC
Consensus atatgtatgagagagcagtgctaagaaaagatcatc

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hTBK1.seq	GAAATATGGAGCAACAGTTGATCTTTGGAGCATTGG
hTBK1-c978T_A.seq	GAAATATGGAGCAACAGTTGATCTTTGGAGCATTGG
Consensus	gaaatatggagcaacagttgatctttggagcattgg
hTBK1.seq	ACATTTTACCATGCAGCTACTGGATCACTGCCATTI
hTBK1-c978T_A.seq	ACATTTTACCATGCAGCTACTGGATCACTGCCATTI
Consensus	acatTTTaccatgcagctactggatcactgccattt
hTBK1.seq	CCTTTGAAGGGCCTCGTAGGAATAAAGAAGTGATGT
hTBK1-c978T_A.seq	CCTTTGAAGGGCCTCGTAGGAATAAAGAAGTGATGT
Consensus	cctttgaagggcctcgtaggaataaagaagtgatgt
hTBK1.seq	AATAATTACAGGAAAGCCTTCTGGTGCAATATCTGG
hTBK1-c978T_A.seq	AATAATTACAGGAAAGCCTTCTGGTGCAATATCTGG
Consensus	aataattacaggaagccttctggtgcaatatctgg
hTBK1.seq	CAGAAAGCAGAAAATGGACCAATTGACTGGAGTGGGA
hTBK1-c978T_A.seq	CAGAAAGCAGAAAATGGACCAATTGACTGGAGTGGGA
Consensus	cagaaagcagaaaatggaccaattgactggagtggga
hTBK1.seq	TGCCGTGTTTCTTGCAGTCTTTCTCGGGGTCTTCAGG
hTBK1-c978T_A.seq	TGCCGTGTTTCTTGCAGTCTTTCTCGGGGTCTTCAGG
Consensus	tgccgtgTTTcttgcagctTTTctcggggTcttcagg
hTBK1.seq	ACTTACCCCTGTTCTTGCAAACATCCTTGAAGCAGA
hTBK1-c978T_A.seq	ACTTACCCCTGTTCTTGCAAACATCCTTGAAGCAGA
Consensus	acttaccctgTTcttgcAAacatccttgaagcaga
hTBK1.seq	GAAAAGTGTTGGGGTTTTGACCAGTTTTTTGCAGAA
hTBK1-c978T_A.seq	GAAAAGTGTTGGGGTTTTGACCAGTTTTTTGCAGAA
Consensus	gaaaagtgTTggggTTTTgaccagTTTTttgcagaa
hTBK1.seq	GTGATATACTTCACCGAATGGTAATTCATGTTTTT
hTBK1-c978T_A.seq	GTGATATACTTCACCGAATGGTAATTCATGTTTTT
Consensus	gtgatatacttcaccgaatggtaattcatgTTTTT
hTBK1.seq	ACAACAATGACAGCTCATAAGATTTATATTCATAG
hTBK1-c978T_A.seq	ACAACAATGACAGCTCATAAGATTTATATTCATAG
Consensus	acaacaatgacagctcataagatttatat catag
hTBK1.seq	AATACTGCTACTATATTTTCATGAACCTGGTATATAAA
hTBK1-c978T_A.seq	AATACTGCTACTATATTTTCATGAACCTGGTATATAAA
Consensus	aatactgctactatattttcatgaactggatataaaa
hTBK1.seq	CCAAAATTATTTCTTCAAATCAAGAACTTATCTACG
hTBK1-c978T_A.seq	CCAAAATTATTTCTTCAAATCAAGAACTTATCTACG
Consensus	ccaaaattatTTcttcaaATcaagaacttatctacg
hTBK1.seq	GCGACGCTTAGTCTTAGAACCTGGAAGGCTGGCACA
hTBK1-c978T_A.seq	GCGACGCTTAGTCTTAGAACCTGGAAGGCTGGCACA
Consensus	gcgacgcttagtcttagaacctggaaggctggcaca
hTBK1.seq	TTCCCTAAAACACTACTGAGGAAAACCCTATATTGTA
hTBK1-c978T_A.seq	TTCCCTAAAACACTACTGAGGAAAACCCTATATTGTA
Consensus	ttccctaaaactactgaggaaaaccctatatttgta
hTBK1.seq	GCCGGGAACCTCTGAATACCATAGGATTAATATATG
hTBK1-c978T_A.seq	GCCGGGAACCTCTGAATACCATAGGATTAATATATG
Consensus	gccgggaacctctgaataccataggattaatatatg
hTBK1.seq	AATTTCCCTCCCTAAAGTACATCCACGTTATGATTT
hTBK1-c978T_A.seq	AATTTCCCTCCCTAAAGTACATCCACGTTATGATTT
Consensus	aatttccctccctaaagtacatccacgTTatgattt
hTBK1.seq	GGGGATGCTAGCATGGCTAAGGCAATAACAGGGGTT
hTBK1-c978T_A.seq	GGGGATGCTAGCATGGCTAAGGCAATAACAGGGGTT
Consensus	ggggatgctagcatggctaaggcaataacaggggTT

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hTBK1.seq	GTTATGCCTGCAGAATTGCCAGTACCTTACTGCTTT
hTBK1-c978T_A.seq	GTTATGCCTGCAGAATTGCCAGTACCTTACTGCTTT
Consensus	gttatgcctgcagaattgccagtaccttactgcttt
hTBK1.seq	GGAATTAATGCGAAAGGGGATACGATGGCTGATTGA
hTBK1-c978T_A.seq	GGAATTAATGCGAAAGGGGATACGATGGCTGATTGA
Consensus	ggaattaatgcgaaaggggatacगतgctgattga
hTBK1.seq	ATTAAAGATGATTACAATGAACTGTTACAAAAAG
hTBK1-c978T_A.seq	ATTAAAGATGATTACAATGAACTGTTACAAAAAG
Consensus	attaagatgattacaatgaaactgttcacaaaaag
hTBK1.seq	AAGTTGTGATCACATTGGATTCTGTATCAGAAACA
hTBK1-c978T_A.seq	AAGTTGTGATCACATTGGATTCTGTATCAGAAACA
Consensus	aagttgtgatcacattggatttctgtatcagaaca
hTBK1.seq	AAAACTGTGAAAGTATATGAAAAGTTGATGAAGAT
hTBK1-c978T_A.seq	AAAACTGTGAAAGTATATGAAAAGTTGATGAAGAT
Consensus	aaaaactgtgaaagtatatgaaaagttgatgaagat
hTBK1.seq	CTGGAAGCGGCAGAGTTAGGTGAAATTCAGACATA
hTBK1-c978T_A.seq	CTGGAAGCGGCAGAGTTAGGTGAAATTCAGACATA
Consensus	ctggaagcggcagagttaggtgaaatttcagacata
hTBK1.seq	CCAAATTGTTGAGACTTCCAGTTCTCAGGGAACAA
hTBK1-c978T_A.seq	CCAAATTGTTGAGACTTCCAGTTCTCAGGGAACAA
Consensus	ccaaattgttgagacttccagttctcagggaacaa
hTBK1.seq	AACCAGTCTTCAGGATATCGACAGCAGATTATCTCC
hTBK1-c978T_A.seq	AACCAGTCTTCAGGATATCGACAGCAGATTATCTCC
Consensus	aaccagtcttcaggatatcgacagcagattatctcc
hTBK1.seq	GGATCACTGGCAGACGCATGGGCACATCAAGAAGGC
hTBK1-c978T_A.seq	GGATCACTGGCAGACGCATGGGCACATCAAGAAGGC
Consensus	ggatcactggcagacgcатgggcacatcaagaaggc
hTBK1.seq	ATCCGAAAGACAGAAATGTAGAAAACTACAAGTCC
hTBK1-c978T_A.seq	ATCCGAAAGACAGAAATGTAGAAAACTACAAGTCC
Consensus	atccgaaagacagaaatgtagaaaaactacaagtcc
hTBK1.seq	AAATTGCATGACAGAGATTTACTATCAGTTCAAAAA
hTBK1-c978T_A.seq	AAATTGCATGACAGAGATTTACTATCAGTTCAAAAA
Consensus	aaattgcatgacagagatttactatcagttcaaaaa
hTBK1.seq	AAAGCAGAACGTAGATTAGCTTATAATGAAGAACAA
hTBK1-c978T_A.seq	AAAGCAGAACGTAGATTAGCTTATAATGAAGAACAA
Consensus	aaagcagaacgtagattagcttataatgaagaacaa
hTBK1.seq	ACAAATTTGATAAGCAAAAACCTGTATTACCATGCCA
hTBK1-c978T_A.seq	ACAAATTTGATAAGCAAAAACCTGTATTACCATGCCA
Consensus	acaaat ttgataagcaaaaactgtattaccatgcca
hTBK1.seq	AGCTATGACGCACCTTACAGATGAATGTGTTAAAAA
hTBK1-c978T_A.seq	AGCTATGACGCACCTTACAGATGAATGTGTTAAAAA
Consensus	agctatgacgcactttacagatgaatgtgttaaaaa

Supplementary Figure 1. The sequence of hTBK1-c.978T>A mutation in NSC-34 cells.