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Product datasheet for RC218935

TLK2 (NM_006852) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TLK2 (NM_006852) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TLK2
Synonyms:	HsHPK; MRD57; PKU-ALPHA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC218935 representing NM_006852
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATGGAAGAATTGCATAGCCTGGACCCACGACGGCAGGAATTATTGGAGGCCAGGTTTACTGGAGTAG
GTGTTAGTAAGGGACCACTTAATAGTGAGTCTTCCAACCAGAGCTTGTGCAGCGTCGGATCCTTGAGTGA
TAAAGAAGTAGAGACTCCCGAGAAAAAGCAGAATGACCAGCGAAATCGGAAAAGAAAAGCTGAACCATAT
GAAACTAGCCAAGGGAAAGGCACTCCTAGGGGACATAAAATTAGTGATTACTTTGAGTTTGCTGGGGGAA
GCGCGCCAGGAACCAGCCCTGGCAGAAGTGTTCCACCAGTTGCACGATCCTCACCGCAACATTCCTTATC
CAATCCCTTACCGCGACGAGTAGAACAGCCCCTCTATGGTTTAGATGGCAGTGCTGCAAAGGAGGCAACG
GAGGAGCAGTCTGCTCTGCCAACCCTCATGTCAGTGATGCTAGCAAAACCTCGGCTTGACACAGAGCAGC
TGGCGCAAAGGGGAGCTGGCCTCTGCTTCACTTTTGTTTCAGCTCAGCAAAACAGTCCCTCATCTACGGG
ATCTGGCAACACAGAGCATTCCTGCAGCTCCCAAAAACAGATCTCCATCCAGCACAGACAGACCCAGTCC
GACCTCACAATAGAAAAAATATCTGCACTAGAAAACAGTAAGAATTCTGACTTAGAGAAGAAGGAGGGAA
GAATAGATGATTTATTAAGAGCCAACTGTGATTTGAGACGGCAGATTGATGAACAGCAAAAGATGCTAGA
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GATAAATTCACAGAGGGAAGAGATAGAAAGACAACGGAAAATGTTAGCAAAGCGGAAACCTCCTGCCATG
GGTCAGGCCCCTCCTGCAACCAATGAGCAGAAACAGCGGAAAAGCAAGACCAATGGAGCTGAAAATGAAA
CGTTAACGTTAGCAGAATACCATGAACAAGAAGAAATCTTCAAACTCAGATTAGGTCATCTTAAAAAGGA
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CAAATTAATGTCGGAGAAAGAGGCCCGGTCCATTATCATGCAGATTGTGAATGCTTTAAAGTACTTAAAT
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TACTGAAGTGCAGTTCCCGCCAAAGCCAGTAGTAACACCTGAAGCAAAGGCGTTTATTCGACGATGCTTG
GCCTACCGAAAGGAGGACCGCATTGATGTCCAGCAGCTGGCCTGTGATCCCTACTTGTTGCCTCACATCC
GAAAGTCAGTCTCTACAAGTAGCCCTGCTGGAGCTGCTATTGCATCAACCTCTGGGGCGTCCAATAACAG
TTCTTCTAAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC218935 representing NM_006852
Red=Cloning site Green=Tags(s)

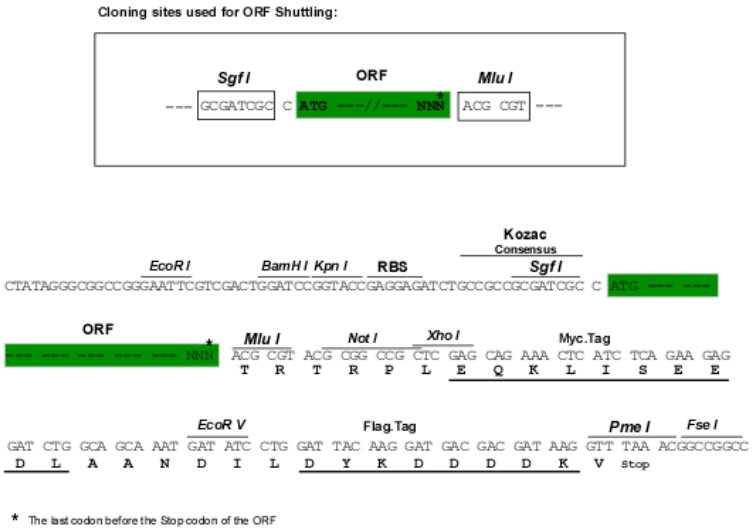
MMEELHSLDPRRQELLEARFTGVGVSKGPLNSESSNQSLCSVGSLSDKEVETPEKKQNDQRNRKRKAEPY
ETSQGKGTPRGHKISDYFEFAGGSAPGTSPGRSVPPVARSSPQHSLSNPLPRRVEQPLYGLDGSAAKEAT
EEQSALPTLMSVMLAKPRLDTEQLAQRGAGLCFTFVSAQQNSPSSTGSGNTEHSCSSQKQISIQHRQTQS
DLTIEKISALENSKNSDLEKKEGRIDDLLRANCDLRRQIDEQQKMLEKYKERLNRCVTMSKKLLIEKSKQ
EKMACRDKSMQDRLRLGHFTTVRHGASFTEQWTDGYAFQNLIKQQERINSQREEIERQRKMLAKRKPPAM
GQAPPATNEQKQRKSKTNGAENETLTLAEYHEQEEIFKLRLGHLKKEEAEIQAELERLERVRNLHIRELK
RIHNEDNSQFKDHPTLNDRYLLLHLLGRGGFSEVYKAFDLTEQRYVAVKIHQLNKNWRDEKKENYHKHAC
REYRIHKELDHPRIVKLYDYFSLDTDSFCTVLEYCEGNDLDFYLKQHKLMSEKEARSIIMQIVNALKYLN
EIKPPIIHYDLKPGNILLVNGTACGEIKITDFGLSKIMDDDSYNSVDGMELTSQGAGTYWYLPPECFVVG
KEPPKISNKVDVWSVGVIFYQCLYGRKPFGHNQSQQDILQENTILKATEVQFPPKPVVTPEAKAFIRRCL
AYRKEDRIDVQQLACDPYLLPHIRKSVSTSSPAGAAIASTSGASNNSSSN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6104_a04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006852

ORF Size: 2250 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_006852.6
RefSeq Size:	3616 bp
RefSeq ORF:	2253 bp
Locus ID:	11011
UniProt ID:	Q86UE8
Cytogenetics:	17q23.2
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
MW:	85.3 kDa
Gene Summary:	This gene encodes a nuclear serine/threonine kinase that was first identified in Arabidopsis. The encoded protein is thought to function in the regulation of chromatin assembly in the S phase of the cell cycle by regulating the levels of a histone H3/H4 chaperone. This protein is associated with double-strand break repair of DNA damage caused by radiation. Pseudogenes of this gene are present on chromosomes 10 and 17. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Sep 2013]

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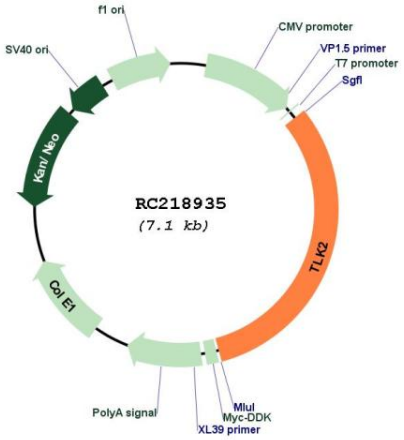
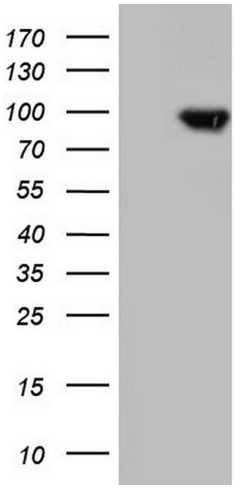
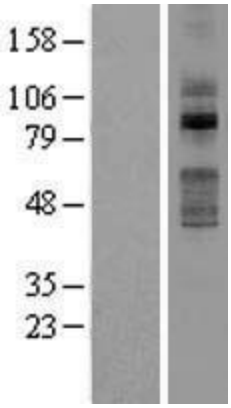
Product images:



Circular map for RC218935



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TLK2 (Cat# RC218935, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TLK2(Cat# [TA805458]). Positive lysates [LY416375] (100ug) and [LC416375] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY416375]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218935 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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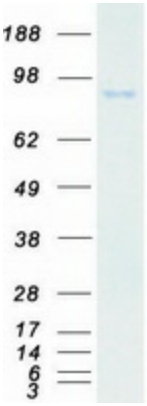

Coomassie blue staining of purified TLK2 protein (Cat# [TP318935]). The protein was produced from HEK293T cells transfected with TLK2 cDNA clone (Cat# RC218935) using MegaTran 2.0 (Cat# [TT210002]).

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