

Product datasheet for **MC228081**

Txk (NM_001289494) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Txk (NM_001289494) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Txk
Synonyms:	A130089B16Rik; Btkl; PTK-RL-18; PTK4; Rlk
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC228081 representing NM_001289494
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATCCTGTCTTATAGCTCCTCCAGTCTGTTCTCTGCTGCTGTTGCCGTGCTCAGTACAGA
 AGAGACAGGTGAGAACTCAGATAAGCCTGAGCAGAGAGGAAGAAGCTCTCAGAAAAACATCCAGCGTCA
 GAGGCCGTGGTTCGCCAAACTGATGGGCAAACTCAATCCAACAGAGCGGGGTGCAACCCCTCGAAGCGC
 AAGCCGCTGCCCCCTCCCGCAGGAGCCTCCAGATGAGAGAATCCAGGTCAAGGCTCTTTATGACTTCC
 TGCCTCGGAGCCTGGTAATTTGGCACTGAAGAGAGCGGAGGAATATCTGATATTGGAGAGGTGTGATCC
 TCACTGGTGAAGGCCAGAGACCCTTCGGATGGTACCACAAGAACATTACGAGAAACCAGACCGAACGC
 CTATTGAGCAAGAGGCTAAAGAAGGTGCCTTTATCGTGAGAGATTGAGACACTGGGGTCTTACACAA
 TCTCTGTGTTTACAAGAGCTCGAAGGCATACACAGTCTTCAATAAAACATTATCAGATAAAAAAGATGA
 CTCGGACAGTGGTACATCACCGAAAGACATCTTCCCTCAGTCCCGAGTTGATCCAGTATCACCAG
 TACAATGCAGCTGGTCTCATATCTCGTCTCCGCTATCCATTGGGCTCCTGGGCAGCTGTTTACCAGCCA
 CATCTGGTTTTAGCTATGAAAAGTGGGAGATAGATCCATCAGAGTTGGCTTTTGTCAAGGAGATCGGAAG
 TGGTCAGTTTGGGGTGTCCACTTAGGAGAATGGAGAGCAGATATCCCGTCGCCATCAAGGCCATCAAT
 GAAGGTTCCATGTCTGAAGAAGACTTATTGAGGAAGCCAAGGTGATGATGAAACTGTCACATTCGAGGT
 TAGTTCAACTTTACGGGGTGTGTATACAGCAGAAGCCCTGTACATAGTGACGGAGTTCATGGAGAACGG
 CTGCCTGCTTGACTATCTCAGGGAGAGGAAAGGCCAGCTTCAAGAGGCGTGTCTTGGAGCATGTGCCAA
 GACATATGTGAAGGATGGCGTACCTGGAGAGGAGCTGCTATATTCACAGGGATCTGGCTGCCAGGAAGT
 GTTTGGTCAAGTCTGCCTGCGTAGTAAAGATCTCAGACTTCGGCATGGCAGGTATGTTTTGGACGATGA
 ATATATCAGTTCTCTGGAGCTAAGTTCACAGTCAAGTGGTGGCCACCTGAAGTCTTTCATTTCAACAAA
 TACAGTAGCAAGTCTGATGTCTGGTCTCGGAGTTTTAATGTGGGAAGTTTTTACAGAAGGAAAAATGC
 CTTTTGAAAAAAGTCAAATTTGCAAGTGGTGGAGCCATTTCTCAAGGTTTCCGGCTGTATCGTCTCA
 CCTGGCCCCATGACCATATACAGAGTGTACAGTTGCTGGCATGAGAGCCCTAAAGGCCGTCGACACA
 TTTGCTGAGCTGCTTCAAGTCTCACGGAGATCGCAGAAACGTGG**TGA**

ACGGTACGGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001289494
- Insert Size:** 1518 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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:	<ol style="list-style-type: none">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:	<u>NM_001289494.1</u> , <u>NP_001276423.1</u>
RefSeq Size:	2194 bp
RefSeq ORF:	1518 bp
Locus ID:	22165
Cytogenetics:	5 38.44 cM
Gene Summary:	<p>Non-receptor tyrosine kinase that plays a redundant role with ITK in regulation of the adaptive immune response. Regulates the development, function and differentiation of conventional T-cells and nonconventional NKT-cells. When antigen presenting cells (APC) activate T-cell receptor (TCR), a series of phosphorylation lead to the recruitment of TXK to the cell membrane, where it is phosphorylated at Tyr-420. Phosphorylation leads to TXK full activation. Contributes also to signaling from many receptors and participates in multiple downstream pathways, including regulation of the actin cytoskeleton. Like ITK, can phosphorylate PLCG1, leading to its localization in lipid rafts and activation, followed by subsequent cleavage of its substrates. In turn, the endoplasmic reticulum releases calcium in the cytoplasm and the nuclear activator of activated T-cells (NFAT) translocates into the nucleus to perform its transcriptional duty. With PARP1 and EEF1A1, TXK forms a complex that acts as a T-helper 1 (Th1) cell-specific transcription factor and binds the promoter of IFNG to directly regulate its transcription, and is thus involved importantly in Th1 cytokine production. Phosphorylates both PARP1 and EEF1A1. Phosphorylates also key sites in LCP2 leading to the up-regulation of Th1 preferred cytokine IL-2. Phosphorylates 'Tyr-201' of CTLA4 which leads to the association of PI-3 kinase with the CTLA4 receptor.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (3) lacks an alternate in-frame exon, compared to variant 1. The encoded isoform (3) is shorter than isoform 1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.</p>