

## Product datasheet for **MC219595**

### **Tec (NM\_001113461) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Tec (NM_001113461) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Tec
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC219595 representing NM\_001113461  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAATTTCAACACTATCCTAGAAGAGATTCTTATTAAGGTCAGCAGAAAAAGAAGACATCACCCCT  
 TAAACTACAAAGAGAGACTTTTTGTACTTACAAAATCCGTGTTGAGCTACTATGAGGGTCGAGCGGAGAA  
 GAAATACAGAAAGGGCGTCATTGATATTTCCAAAATCAAGTGTGTGGAGATAGTGAAGAACGATGATGGT  
 GTCATTCCCTGTCAAATAAATTTCCATTCCAGGTTGTTTCATGATGCTAATACACTTTATATTTTTGCAC  
 CTAGTCCACAAAGCAGGGACCGATGGGTGAAGAAGTAAAGAAGAAAATAAGAACAACAATAATATCAT  
 GATTAATAACCATCTAAATTTCTGGGCAGATGGGAGTTACCAGTGTGTAGACAAACAGAAAACTAGCA  
 CCCGGATGTGAGAAGTACAATCTTTTTGAGAGTAGATAAGAAAGACCCTGCCTCCCGGCCAGAAATAA  
 AGAAGAGAAGGCCTCTCCACCAATCCCCAGAGGAAGAAAATACTGAAGAAATCGTTGTAGCGATGTA  
 TGACTTCCAAGCGACGGAAGCACATGACCTCAGGTTAGAGAGAGGCCAAGAGTATATCATCTGGAAAAG  
 AATGACCTCCATTGGTGGAGAGCGAGAGATAAGTATGGGTGGTACTGCAGAAATACCAACAGAAGCAAAG  
 CAGAACAGCTCCTCAGAACGGAAGATAAAGAAGGTGGTTTTATGGTGGAGAGACTCCAGTCAACCAGGCTT  
 GTACACTGTCTCCCTTTACAAAAGTTGGGGGAGAAGGCTCATCAGTTTTCAGGCATTATCACATAAAG  
 GAAACAGCAACATCCCCAAAGAAGTATTACCTGGCAGAGAAGCATGCTTTCGGGTCCATTCTGAGATCA  
 TTGAATATCACAAGCACAATGCCGCGGGCTTGTACCAGGCTGCCGTACCCGGTCAGTACAAAGGGGAA  
 GAACGCTCCCCTACTGCCGGCTTCAGCTATGATAAGTGGGAGATTAACCCATCAGAGCTGACCTTTATG  
 AGAGAGTTGGGGAGCGGACTGTTTGGAGTGGTGGGCTGGCAAGTGGCGGGCCAGTACAAAGTGGCCA  
 TCAAAGCTATCCGGGAAGCGCCATGTGTGAAGAGGATTCATAGAGGAAGCTAAAGTCATGATGAAGCT  
 GACACACCCCAAGCTGGTACAGCTCTATGGTGTATGCACCCAGCAGAAGCCCATCTACATCGTTACCGAG  
 TTCATGGAACGGGCTGCCTTCTGAATTTCTCCGGCAGAGACAAGGCCATTTTCAGCAGAGACATGCTGC  
 TAAGCATGTGTCAAGATGTCTGTGAAGGGATGGAGTACCTGGAGAGAAACAGTTTCATCCACAGAGACCT  
 GGCTGCCAGAAATGTCTAGTGAATGAAGCAGGAGTTGTCAAAGTATCTGATTTTGAATGGCCAGGTAC  
 GTTCTGGATGATCAGTACACAAGTTCTTCTGGCGCAAGTTCCCTGTGAAGTGGTGTCCCCAGAAGTGT  
 TTAATTACAGCCGCTTTAGCAGCAAGTCAGACGCTGGTCTGTTGGTGTGCTAATGTGGGAAATATTCAC  
 AGAAGGCAGGATGCCCTTTGAGAAGAACCAATTACGAAGTGGTAACCATGGTACTCGTGCCACCCGC  
 CTCACCCGGCAAAGCTGGCTTCAAATATTTGTATGAGGTGATGCTGAGATGCTGGCAAGAGAGACCAG  
 AGGGAAGGCCTTCTTTGAAGACTTGTGCGTACGATAGATGAAGTGAATGTGAAGAACTTTTGG  
 AAGATGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_001113461
- Insert Size:** 1827 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).
- 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\\_001113461.2](#), [NP\\_001106932.1](#)

**RefSeq Size:** 2595 bp

**RefSeq ORF:** 1827 bp

**Locus ID:** 21682

**UniProt ID:** [P24604](#)

**Cytogenetics:** 5 38.44 cM

**Gene Summary:** Non-receptor tyrosine kinase that contributes to signaling from many receptors and participates as a signal transducer in multiple downstream pathways, including regulation of the actin cytoskeleton. Plays a redundant role to ITK in regulation of the adaptive immune response. Regulates the development, function and differentiation of conventional T-cells and nonconventional NKT-cells. Required for TCR-dependent IL2 gene induction. Phosphorylates DOK1, one CD28-specific substrate, and contributes to CD28-signaling. Mediates signals that negatively regulate IL2RA expression induced by TCR cross-linking. Plays a redundant role to BTK in BCR-signaling for B-cell development and activation, especially by phosphorylating STAP1, a BCR-signaling protein. Required in mast cells for efficient cytokine production. Involved in both growth and differentiation mechanisms of myeloid cells through activation by the granulocyte colony-stimulating factor CSF3, a critical cytokine to promoting the growth, differentiation, and functional activation of myeloid cells. Participates in platelet signaling downstream of integrin activation. Cooperates with JAK2 through reciprocal phosphorylation to mediate cytokine-driven activation of FOS transcription. GRB10, a negative modifier of the FOS activation pathway, is another substrate of TEC. TEC is involved in G protein-coupled receptor- and integrin-mediated signalings in blood platelets. Plays a role in hepatocyte proliferation and liver regeneration and is involved in HGF-induced ERK signaling pathway. TEC regulates also FGF2 unconventional secretion (endoplasmic reticulum (ER)/Golgi-independent mechanism) under various physiological conditions through phosphorylation of FGF2 'Tyr-82'. May also be involved in the regulation of osteoclast differentiation. [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) lacks an alternate in-frame exon in the 5' coding region, compared to variant 1. It encodes isoform b, which lacks an internal segment and is shorter than isoform a.