

## Product datasheet for **MG227090**

### Tec (NM\_001113460) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tec (NM_001113460) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tec
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG227090 representing NM\_001113460  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGAATTTCAACACTATCCTAGAAGAGATTCTTATTAAGAGTCCAGCAGAAAAAGAAGACATCACCC  
 TAAACTACAAAGAGAGACTTTTTGTACTTACAAAATCCGTGTTGAGCTACTATGAGGTCGAGCGGAGAA  
 GAAATACAGAAAGGGCGTCATTGATATTTCCAAAATCAAGTGTGTGGAGATAGTGAAGAACGATGATGGT  
 GTCATTCCCTGTCAAATAAATTTCCATTCCAGGTTGTTTCATGATGCTAATACACTTTATATTTTTGCAC  
 CTAGTCCACAAAGCAGGGACCGATGGGTGAAGAAGTAAAAGAAGAAAATAAAGAACAACAATAATATCAT  
 GATTAATAACCATCCTAAATTTCTGGGCAGATGGGAGTTACCAGTGTGTAGACAAAACAGAAAACTAGCA  
 CCCGGATGTGAGAAGTACAATCTTTTTGAGAGTAGATAAGAAAGACCCTGCCTCCCGGCCAGAAAATAA  
 AGAAGAGAAGGCCTCTCCACCAATCCCCAGAGGAAGAAAATACTGAAGAAATCGTTGTAGCGATGTA  
 TGACTTCAAGCGACGGAAGCACATGACCTCAGGTTAGAGAGAGGCCAAGAGTATATCATCTGGAAAAG  
 AATGACCTCCATTGGTGGAGAGCGAGAGATAAGTATGGGAGTGAAGGATATATCCCAAGTAAATAGTCA  
 CAGGGAAGAAATCCAACAATTAGATCAATATGAGTGGTACTGCAGAAATACCAACAGAAGCAAAGCAGA  
 ACAGCTCCTCAGAACGGAAGATAAAGAAGGTGGTTTTATGGTGGAGAGACTCCAGTCAACCAGGCTTGAC  
 ACTGTCTCCCTTTACACAAAGTTTGGGGAGAAGGCTCATCAGGTTTCAGGCATTATCACATAAAGGAAA  
 CAGCAACATCCCCAAAGAAGTATTACCTGGCAGAGAAGCATGCTTTCCGGTCCATTCTGAGATCATTGA  
 ATATCACAAAGCACAATGCGGCAGGGCTTGTCACCAGGCTGCGGTACCCGGTCAGTACAAAGGGGAAGA  
 GCTCCCCTACTGCCGGCTTCAGCTATGATAAGTGGGAGATTACCCATCAGAGCTGACCTTTATGAGAG  
 AGTTGGGGAGCGGACTGTTTGGAGTGGTGGGCTTGGCAAGTGGCGGGCCAGTACAAAGTGGCCATCAA  
 AGCTATCCGGGAAGGCCCATGTGTGAAGAGGATTTTCATAGAGGAAGCTAAAGTCATGATGAAGTGACA  
 CACCCCAAGCTGGTACAGCTCTATGGTGTATGACCCAGCAGAAGCCATCTACATCGTTACCGAGTTCA  
 TGGAACGGGGCTGCCTTCTGAATTTCTCCGGCAGAGACAAGGCCATTTCCAGCAGAGACATGCTGCTAAG  
 CATGTGTCAAGATGTCTGTGAAGGGATGGAGTACCTGGAGAGAAACAGCTTCATCCACAGAGACCTGGCT  
 GCCAGAAATTGTCTAGTGAATGAAGCAGGAGTTGTCAAAGTATCTGATTTTGAATGGCCAGGTACGTTT  
 TGGATGATCAGTACACAAGTTCTTCTGGCAGCAAGTCCCTGTGAAGTGGTGTCCCCAGAAAGTGTTTAA  
 TTACAGCCGCTTTAGCAGCAAGTACAGCTCTGGTGTGTTGGTGTGCTAATGTGGGAAATATTCACAGAA  
 GGCAGGATGCCCTTTGAGAAGAACAACCAATTACGAAGTGGTAACCATGGTACTCGTGGCCACCGCTCC  
 ACCGGCCAAAGCTGGCTTCCAAATATTTGTATGAGGTGATGCTGAGATGCTGGCAAGAGAGACCAGAGGG  
 AAGGCCTTCTTTGAAGACTTGCTGCGTACGATAGATGAAGTGTGAATGTGAAGAACTTTTGAAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG227090 representing NM\_001113460  
 Red=Cloning site Green=Tags(s)

MNFNTILEEILIKRSQKKKTSPLNYKERLFVLTKSVLSYYEGRAEKKYRKGVIDISKIKVEIVKNDG  
 VIPCQNKFPFQVVDANTLYIFAPSPQSRDRWVKLKEEIKNNNNIMIKYHPKFWADGSYQCCRQTEKLA  
 PGCEKYNLFESSIRKTLPPAPEIKRRRPPPIPEEENTEIEIVVAMYDFQATEAHDRLRLRQGEYIILEK  
 NDLHWWRRARDKYGSEGYIPSNYVTGKKSNNLDQYEWYCRNTNRSKAEQLRTEDKEGGFMVRDSSQPLY  
 TVSLYTKFGGEGSSGFRHYHIKETATSPKKYYLAEKHAFGSIPEIEYHKHNAAGLVTRLRYPVSTKGN  
 APTTAGFSYDKWEINPSELTFMRELGSGLFGVVRLGKWRAYKVAIKAIREGAMCEEDFIEEAKVMMKLT  
 HPKLVQLYGVCTQKPIYIVTEFMERGLLNFLRQRQGHF SRDMLLSMCQDVCEGMEYLERNSFIHRDLA  
 ARNCLVNEAGVVKVSDFGMARYVLDQYTSSSGAKFPVKWCPPEVFNYSRFSSKSDVWSFGVLMWEIFTE  
 GRMPFEKNTNYEVVMTMVRGHRHLHRPKLASKYLYEVMLRCWQERPEGRPSFEDLLRTIDELVECEETFGR

TRTRPLE - GFP Tag - V

**Restriction Sites:**

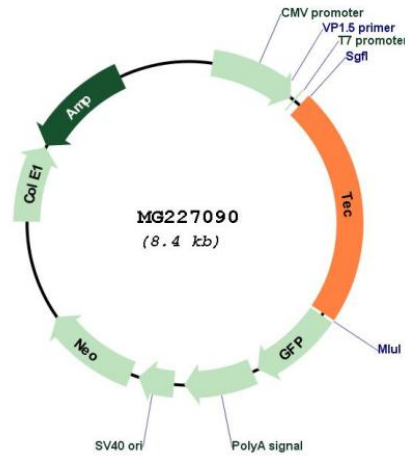
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_001113460

ORF Size: 1890 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001113460.2</a> , <a href="#">NP_001106931.1</a>
<b>RefSeq Size:</b>	2656 bp
<b>RefSeq ORF:</b>	1893 bp
<b>Locus ID:</b>	21682
<b>UniProt ID:</b>	<a href="#">P24604</a>
<b>Cytogenetics:</b>	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]