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Product datasheet for MG209373

Tec (BC037071) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tec (BC037071) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tec
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG209373 representing BC037071
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAATTTCAACACTATCCTAGAAGAGATTCTTATTAAAAGGTCCCAGCAGAAAAAGAAGACATCACCCT
TAAACTACAAAGAGAGACTTTTTGTACTTACAAAATCCGTGTTGAGCTACTATGAGGGTCGAGCGGAGAA
GAAATACAGAAAGGGCGTCATTGATATTTCCAAAATCAAGTGTGTGGAGATAGTGAAGAACGATGATGGT
GTCATTCCCTGTCAAAATAAATTTCCATTCCAGGTTGTTCATGATGCTAATACACTTTATATTTTTGCAC
CTAGTCCACAAAGCAGGGACCGATGGGTGAAGAAGTTAAAAGAAGAAATAAAGAACAACAATAATATCAT
GATTAAATACCATCCTAAATTCTGGGCAGATGGGAGTTACCAGTGTTGTAGACAAACAGAAAAACTAGCA
CCCGGATGTGAGAAGTACAATCTTTTTGAGAGTAGTATAAGAAAGACCCTGCCTCCCGCGCCAGAAATAA
AGAAGAGAAGGCCTCCTCCACCAATTCCCCCAGAGGAAGAAAATACTGAAGAAATCGTTGTAGCGATGTA
TGACTTCCAAGCGACGGAAGCACATGACCTCAGGTTAGAGAGAGGCCAAGAGTATATCATCCTGGAAAAG
AATGACCTCCATTGGTGGAGAGCGAGAGATAAGTATGGGTGGTACTGCAGAAATACCAACAGAAGCAAAG
CAGAACAGCTCCTCAGAACGGAAGATAAAGAAGGTGGTTTTATGGTGAGAGACTCCAGTCAACCAGGCTT
GTACACTGTCTCCCTTTACACAAAGTTTGGGGGAGAAGGCTCATCAGGTTTCAGGCATTATCACATAAAG
GAAACAGCAACATCCCCAAAGAAGTATTACCTGGCAGAGAAGCATGCTTTCGGGTCCATTCCTGAGATCA
TTGAATATCACAAGCACAATGCGGCAGGGCTTGTCACCAGGCTGCGGTACCCGGTCAGTACAAAGGGGAA
GAACGCTCCCACTACTGCCGGCTTCAGCTATGATAAGTGGGAGATTAACCCATCAGAGCTGACCTTTATG
AGAGAGTTGGGGAGCGGACTGTTTGGAGTGGTGAGGCTTGGCAAGTGGCGGGCCCAGTACAAAGTGGCCA
TCAAAGCTATCCGGGAAGGCGCCATGTGTGAAGAGGATTTCATAGAGGAAGCTAAAGTCATGATGAAGCT
GACACACCCCAAGCTGGTACAGCTCTATGGTGTATGCACCCAGCAGAAGCCCATCTACATCGTTACCGAG
TTCATGGAACGGGGCTGCCTTCTGAATTTCCTCCGGCAGAGACAAGGCCATTTCAGCAGAGACATGCTGC
TAAGCATGTGTCAAGATGTCTGTGAAGGGATGGAGTACCTGGAGAGAAACAGCTTCATCCACAGAGACCT
GGCTGCCAGAAATTGTCTAGTGAATGAAGCAGGAGTTGTCAAAGTATCTGATTTTGGAATGGCCAGGTAC
GTTCTGGATGATCAGTACACAAGTTCTTCTGGCGCCAAGTTCCCTGTGAAGTGGTGTCCCCCAGAAGTGT
TTAATTACAGCCGCTTTAGCAGCAAGTCAGACGTCTGGTCGTTTGGTGTGCTAATGTGGGAAATATTCAC
AGAAGGCAGGATGCCCTTTGAGAAGAACACCAATTACGAAGTGGTAACCATGGTGACTCGTGGCCACCGC
CTCCACCGGCCAAAGCTGGCTTCCAAATATTTGTATGAGGTGATGCTGAGATGCTGGCAAGAGAGACCAG
AGGGAAGGCCTTCCTTTGAAGACTTGCTGCGTACGATAGATGAACTAGTTGAATGTGAAGAAACTTTTGG
AAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

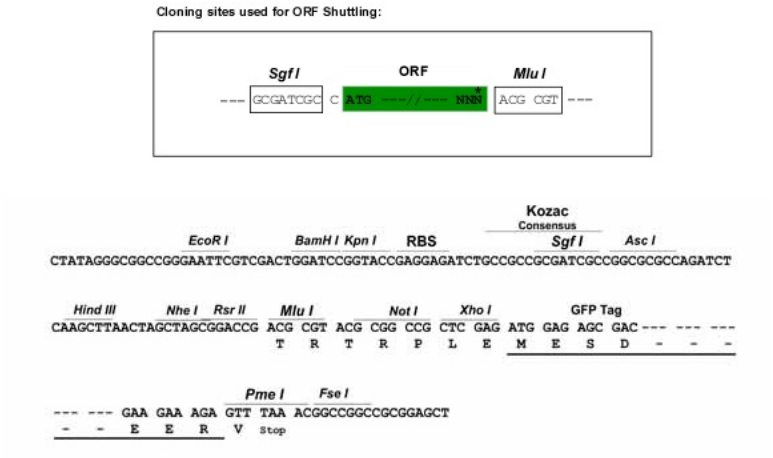
>MG209373 representing BC037071
Red=Cloning site Green=Tags(s)

MNFNTILEEILIKRSQQKKKTSPLNYKERLFVLTKSVLSYYEGRAEKKYRKGVIDISKIKCVEIVKNDDG
VIPCQNKFPFQVVHDANTLYIFAPSPQSRDRWVKKLKEEIKNNNNIMIKYHPKFWADGSYQCCRQTEKLA
PGCEKYNLFESSIRKTLPPAPEIKKRRPPPPIPPEEENTEEIVVAMYDFQATEAHDLRLERGQEYIILEK
NDLHWWRARDKYGWYCRNTNRSKAEQLLRTEDKEGGFMVRDSSQPGLYTVSLYTKFGGEGSSGFRHYHIK
ETATSPKKYYLAEKHAFGSIPEIIEYHKHNAAGLVTRLRYPVSTKGKNAPTTAGFSYDKWEINPSELTFM
RELGSGLFGVVRLGKWRAQYKVAIKAIREGAMCEEDFIEEAKVMMKLTHPKLVQLYGVCTQQKPIYIVTE
FMERGCLLNFLRQRQGHFSRDMLLSMCQDVCEGMEYLERNSFIHRDLAARNCLVNEAGVVKVSDFGMARY
VLDDQYTSSSGAKFPVKWCPPEVFNYSRFSSKSDVWSFGVLMWEIFTEGRMPFEKNTNYEVVTMVTRGHR
LHRPKLASKYLYEVMLRCWQERPEGRPSFEDLLRTIDELVECEETFGR

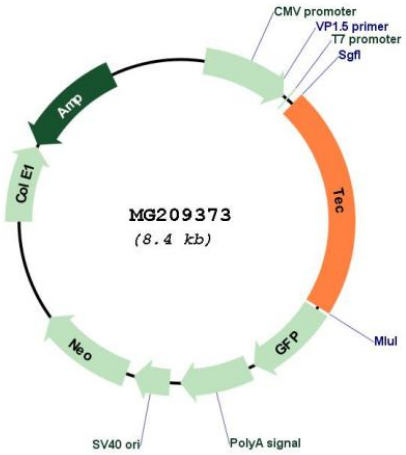
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: BC037071

ORF Size: 1826 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.
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:	BC037071, AAH37071
RefSeq Size:	2598 bp
RefSeq ORF:	1826 bp
Locus ID:	21682
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]