

Product datasheet for **MG211077**

Tnpo1 (NM_001048267) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tnpo1 (NM_001048267) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tnpo1
Synonyms:	AU021749; D13Ertd688e; IPO2; Kpnb2; MIP; MIP1; TRN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>MG211077 representing NM_001048267
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGTATGAGTGGAAACCTGACGAGCAAGGGCTTCAGCAGATCCTGCAGCTGCTCAAGGAGTCCCAGT
 CCCAGACACCACCATCCAGAGGACCGTCAACAAAACTGGAACAACTCAATCAATATCCAGATTTTAA
 CAACTACTTGATTTTTGTTCTTACAAAAATAAAATCTGAAGATGAGCCACACGGTCATTGAGCGGTCTG
 ATCTTGAAGAACAATGTGAAAGCTCATTTTCAGAACTCCCAAATGGTGTGACAGACTTCATCAAGAGTG
 AATGTCTAAATAACATTGGGGACTCCTCTCCGTTGATCAGAGCCACTGTCGGTATTTTAATTACAACCAT
 AGCCTCCAAGGGAGAGCTGCAGAATTGGCCTGATCTTACAAAACTCTGTAGCCTGCTGGATTCCGAG
 GACTACAACACTGTGAGGGAGCCTTCGGTGCCCTTCAGAAGATATGTGAGGACTCTGCAGAGATTTTAG
 ACAGTGATGTCTTAGATCGCCCTCTCAACATCATGATCCCAAGTTTTTACAGTTTTTCAAGCACAGCAG
 TCCAAAAATAAGGTCTCATGCTGTGTCATGTCAATCAGTTCATCATCAGTCGGACCCAGCGCTCATG
 CTGCACATCGATTCCCTTATTGAGAACCTTTTGCAGTGGCTGGCGACGGAAGCAGAGGTGCGGAAGA
 ACGTGTGCCGGCGCTTGTGATGTTGCTTGAAGTCCGGATGGATCGCCTGCTTCCATATGCACAACAT
 AGTCGAGTACATGCTGCAGAGAACCAAGACCAAGATGAGAATGTAGCTCTGGAGGCCTGTGAATTTCTGG
 CTGACTTTGGCTGAACAGCCAATATGCAAAGATGTACTTGTAAAGGCATCTACCAAAGTTGATTCCTGTGT
 TAGTGAATGGCATGAAGTACTCAGATATAGATATTATCTGCTTAAAGGTGATGTTGAGGAAGATGAGAC
 CATCCCGATAGTGAGCAGGATATACGGCCCGGTTTTATCGCTCGAGGACAGTGGCTCAGCAGCATGAG
 GAGGATGGGATTGAGGAGGAAGACGATGATGACGAAATTGATGATGATGACACGATTTCTGACTGGA
 ACCTGAGAAAGTGTCTGCTGCTCGATGTTCTCGAAATGTTTATCGTGATGAGCTTTTGGCCGA
 CATTCTGCCACTTTTGAAGAATTGCTTTTCCATCATGAATGGTTGTGAAAGAATCTGGCATCTTGTT
 TTAGGAGCAATTGCTGAAGTGTATGCAAGGCATGATCCGTACCTGCCCGAGCTCATTCTCACCTTA
 TTCAGTGCCTTTCTGATAAAAAGGCTCTTGTGCGTTCCATCACCTGCTGGACTCTTAGCCGCTATGCACA
 CTGGGTAGTCAGCCAGCCACCAGATACGTACCTGAAGCCATTAATGACAGAACTGCTGAAGCGTATCCTC
 GATAGCAACAAGAGAGTACAGGAAGCAGCTTGCAGTGCCTTCGCTACATTAGAAGAGGAGGCTTGTACAG
 AGCTCGTCCCTTACCTTGCTTATATACTCGATACCCTCGTCTTCGCTTACAGTAAATACCAGCATAAGAA
 CCTGCTCATTCTGTACGACGCCATAGGGACTGCGAGATTGAGTGGGACATCATTTAAACAAGCCAGAA
 TATATTCAGATGTAATGCCTCCTTTGATCCAGAAATGGAACATGCTGAAGGATGAAGACAAGGATCTTT
 TCCTTTGCTTGAGTGTCTCTCGTCTGTTGCCACAGCCTTGCAGTCTGGCTTCCCTCCATATTGTGAACC
 TGTATATCAGCGTTGCGTAAACCTAGTTCAGAAGACTCTGGCACAAGCCATGCTAAACAATGCTCAACCA
 GAACAGTATGAAGCTCCAGATAAAGATTTTATGATTGTGGCTCTTGACTTACTCAGCGGCCTGGCTGAGG
 GCCTGGGAGGCAACATTGAGCAGCTGGTGGCCCGCAGTAAACATCCTGACGCTGATGTACCAGTGCATGCA
 GGATAAAATGCCCGAGGTTCCGGCAGAGTCTTTTGCATTGCTAGGTGACCTGACTAAAGCGTGCTCCAG
 CATGTTAAGCCTTGTATAGCTGATTTTATGCCAATATTGGGAACCAATCTAAATCCAGAGTTTATTTTCA
 TCTGCAACAATGCCACCTGGGCGATTGGGAAAATCAATCCAAATGGGTATAGAGATGCAGCCCTACAT
 CCCTATGGTGTGACCCAGCTTGTGGAGATCATTAAACAGACCCAAACCCCAAGAGCGTGTGGAGAAC
 ACAGCAATAACAATTGGTCGTCTTGTTACGTTTGTCTCAAGAGGTGGCCCCATGCTACAGCAGTTTA
 TAAGACCTGGTGTACCTCTCTGAGAAACATAAGAGACAATGAAGAAAAAGATTACGATTTCCGTGGGAT
 TTGTACCATGATCAGTGTGAATCCAGTGGCGTAATCCAAGATTTTATATTTTTTTGTGATGCTGTTGCA
 TCATGGATTAACCCAAAAGATGATCTCAGAGACATGTTCTGTAAGATCCTTCATGGATTTAAAAACCAAG
 TTGGGGATGAAAATTGGAGGCGATTCTCTGACCAGTTTCTCTTCCCTTAAAGAGCGTCTTGCAGCTTT
 TTATGGTGTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG211077 representing NM_001048267
 Red=Cloning site Green=Tags(s)

MEYEWKPDEQGLQQILQLLKEQSPTTTIQRVQKLEQLNQYPDFNNYLIFVLTKLKEDEPTRLSGL
 ILKNNVKAHFQNFNGVDFIKSECLNNIGDSSPLIRATVGIITTIASKGELQNWPDLLPKLCSLLDSE
 DYNTCEGAFGALQKICEDSAEILSDVLDRLNIMIPKFLQFFKHSSPKIRSHAVACVNQFIISRTQALM
 LHIDSF IENLFALAGDEEA E VRKNVCRALVMLLEVRMDRLLPHMHNIVEYMLQRTQDQDENVALEACEFW
 LT LAEQPIC KDVLVRHLPKLIPVLVNGMKYSDIDIILLKGDVEEDETIPDSEQDIRPRFHRSRVTAQQHE
 EDGIEEEDDDDEIDDDDTISDWNLRKCSAAALDVLANVYRDELLPHILPLLKELLFHHEWVYKESGILV
 LGAIAEGCMQGMIPYLP E LIPHLIQCLSDKKALVRSITCWTL SRYAHWVVSQPPD TYLKPLMTELLKRIL
 DSNKRVQEAACSAFATLEEEACTELVPYLAYILD TLVFAFSKYQHKNLLILYDAIGTLADSVGHHLNKPE
 YIQMLMPLIQKWNMLKDEDKDLFPLLECLSSVATALQSGFLPYCEPVYQRCVNLVQKTLAQAMLNNAQP
 EQYEAPDKDFMIVALDLLSGLA E LGGNIEQLVARSNIL TLMYQCMQDKMPEVRQSSFALLGDLTKACFQ
 HVKPCIADFPILGTNLNPEFISVCNNATWAIGEISIQMGIEMQPIPMVLHQLVEIINRNPNTPKLTLEN
 TAITIGRLGYVCPQEVAPMLQQFIRPWCTSLRNIRDNEEKDSAFRGICTMISVNP SGVIQDFIFFCDAVA
 SWINPKDDL RDMFCKILHGFKNQVDENWRRFSDQFPLPLKERLA AFYGV

TRTRPLE - GFP Tag - V

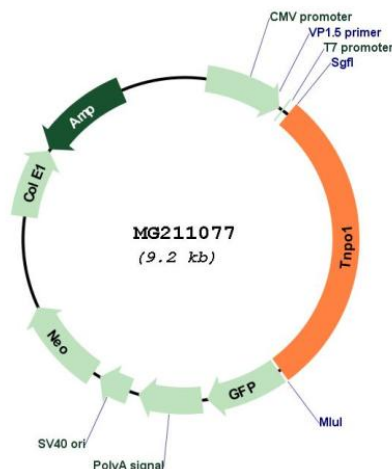
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001048267

ORF Size: 2670 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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: [NM_001048267.1](#), [NP_001041732.1](#)

RefSeq Size: 5385 bp

RefSeq ORF: 2673 bp

Locus ID: 238799

UniProt ID: [Q8BFY9](#)

Cytogenetics: 13 52.24 cM

Gene Summary: Functions in nuclear protein import as nuclear transport receptor. Serves as receptor for nuclear localization signals (NLS) in cargo substrates (PubMed:11493596). Is thought to mediate docking of the importin/substrate complex to the nuclear pore complex (NPC) through binding to nucleoporin and the complex is subsequently translocated through the pore by an energy requiring, Ran-dependent mechanism. At the nucleoplasmic side of the NPC, Ran binds to the importin, the importin/substrate complex dissociates and importin is re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran. The directionality of nuclear import is thought to be conferred by an asymmetric distribution of the GTP- and GDP-bound forms of Ran between the cytoplasm and nucleus (By similarity). Involved in nuclear import of M9-containing proteins. In vitro, binds directly to the M9 region of the heterogeneous nuclear ribonucleoproteins (hnRNP), A1 and A2 and mediates their nuclear import. Appears also to be involved in hnRNP A1/A2 nuclear export. Mediates the nuclear import of ribosomal proteins RPL23A, RPS7 and RPL5. Binds to a beta-like import receptor binding (BIB) domain of RPL23A (By similarity). In vitro, mediates nuclear import of SRP19 (By similarity). Mediates the import of histones H2A, H2B, H3 and H4 (PubMed:11493596). Mediates nuclear import of ADAR/ADAR1 in a RanGTP-dependent manner (By similarity).[UniProtKB/Swiss-Prot Function]