

Product datasheet for **MR211077**

Tnpo1 (NM_001048267) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tnpo1 (NM_001048267) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tnpo1
Synonyms:	AU021749; D13Ertd688e; IPO2; Kpnb2; MIP; MIP1; TRN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>MR211077 representing NM_001048267
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGAGTATGAGTGGAACTGACGAGCAAGGGCTTCAGCAGATCCTGCAGCTGCTCAAGGAGTCCCAGT
 CCCAGACACCACCATCCAGAGGACCGTCAACAAAACTGGAACAACTCAATCAATATCCAGATTTTAA
 CAACTACTTGATTTTTGTTCTTACAAAAATAAAATCTGAAGATGAGCCACACGGTCATTGAGCGGTCTG
 ATCTTGAAGAACAATGTGAAAGCTCATTTCAGAACTCCCAAATGGTGTGACAGACTTCATCAAGAGTG
 AATGTCTAAATAACATTGGGGACTCCTCTCCGTTGATCAGAGCCACTGTCGGTATTTTAATTACAACCAT
 AGCCTCCAAGGGAGAGCTGCAGAATTGGCCTGATCTTACAAAACTCTGTAGCCTGCTGGATTCCGAG
 GACTACAACACTGTGAGGGAGCCTTCGGTGCCTTCAGAAGATATGTGAGGACTCTGCAGAGATTTTAG
 ACAGTGATGTCTAGATCGCCCTCAACATCATGATCCCAAGTTTTTACAGTTTTTCAAGCACAGCAG
 TCCAAAAATAAGGTCTCATGCTGTGTCATGTCAATCAGTTCATCATCAGTCGGACCCAGGCGCTCATG
 CTGCACATCGATTCCCTTATTGAGAACCTTTGCACTGGCTGGCGACGGAAGCAGAGGTGCGGAAGA
 ACGTGTGCCGGCGCTTGTGATGTTGCTTGAAGTCCGGATGGATCGCCTGCTTCCATATGCACAACAT
 AGTCGAGTACATGCTGCAGAGAACCAAGACCAAGATGAGAATGTAGCTCTGGAGGCCTGTGAATTCGG
 CTGACTTTGGCTGAACAGCCAATATGCAAAGATGTAAGGATCTACCAAAGTTGATTCCTGTGT
 TAGTGAATGGCATGAAGTACTCAGATATAGATATTACCTGCTTAAAGGTGATGTTGAGGAAGATGAGAC
 CATCCCGATAGTGAGCAGGATATACGGCCCGGTTTCATCGCTCGAGGACAGTGGCTCAGCAGCATGAG
 GAGGATGGGATTGAGGAGGAAGCAGATGATGATGACGAAATTGATGATGATGACACGATTTCTGACTGA
 ACCTGAGAAAGTGTCTGCTGCTCGATGTTCTCGAAATGTTTATCGTGATGAGCTTTTGGCGCA
 CATTCTGCCACTTTTGAAGAATTGCTTTTCCATCATGAATGGTTGTGAAAGAATCTGGCATCTTGTT
 TTAGGAGCAATTGCTGAAGTGTATGCAAGGCATGATCCGTACCTGCCGAGCTCATTCTCACCTTA
 TTCAGTGCCTTTCTGATAAAAAGGCTCTGTGCGTTCCATCACCTGCTGGACTCTTAGCCGCTATGCACA
 CTGGGTAGTCAGCCAGCCACCAGATACGTACCTGAAGCCATTAATGACAGAACTGCTGAAGCGTATCCTC
 GATAGCAACAAGAGAGTACAGGAAGCAGCTTGCAGTGCCTTCGCTACATTAGAAGAGGAGGCTTGTACAG
 AGCTCGTCCCTTACCTTGCTTATATACTCGATACCCTCGTCTTCGCTTACAGTAAATACCAGCATAAGAA
 CCTGCTCATTCTGTACGACGCCATAGGGACTGCGAGATTCAGTGGGACATCATTAACAAGCCAGAA
 TATATTCAGATGTAATGCCTCCTTTGATCCAGAAATGGAACATGCTGAAGGATGAAGACAAGGATCTTT
 TCCTTTGCTTGAGTGTCTCTGCTGTTGCCACAGCCTTGCAGTCTGGCTTCTTCCATATTGTGAACC
 TGTATATCAGCGTTGCGTAAACCTAGTTCAGAAGACTCTGGCACAAGCCATGCTAAACAATGCTCAACCA
 GAACAGTATGAAGCTCCAGATAAAGATTTTATGATTGTGGCTCTTGACTTACTCAGCGGCCTGGCTGAGG
 GCCTGGGAGGCAACATTGAGCAGCTGGTGGCCCGCAGTAAACATCCTGACGCTGATGTACCAGTGCATGCA
 GGATAAAATGCCCGAGGTTCCGGCAGAGTCTTTTGCATTGCTAGGTGACCTGACTAAAGCGTGCTCCAG
 CATGTTAAGCCTTGTATAGCTGATTTTATGCCAATATTGGGAACCAATCTAAATCCAGAGTTTATTTTCA
 TCTGCAACAATGCCACCTGGGCGATTGGGAAATATCAATCCAAATGGGTATAGAGATGCAGCCCTACAT
 CCCTATGGTGTGACCCAGCTTGTGGAGATCATTAAACAGACCCAAACCCCAAGAGCGTGTGGAGAAC
 ACAGCAATAACAATTGGTCGCTTGGTTACGTTTGTCTCAAGAGGTGGCCCATGCTACAGCAGTTTA
 TAAGACCTGGTGTACCTCTCTGAGAAACATAAGAGACAATGAAGAAAAAGATTCAGCATTCCGTGGGAT
 TTGTACCATGATCAGTGTGAATCCAGTGGCGTAATCCAAGATTTTATATTTTTTTGTGATGCTGTTGCA
 TCATGGATTAACCCAAAAGATGATCTCAGAGACATGTTCTGTAAGATCCTTCATGGATTTAAAACCAAG
 TTGGGGATGAAAATTGGAGGCGATTCTCTGACCAGTTTCTTCCCTTAAAAGAGCGTCTTGCAGCTTT
 TTATGGTGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR211077 representing NM_001048267
 Red=Cloning site Green=Tags(s)

MEYEWKPDEQGLQQILQLLKEQSQSPDTTIQRVQKLEQLNQYPDFNNYLIFVLTKLKESEDEPTRLSGL
 ILKNNVKAHFQNFPGVDFIKSECLNNIGDSSPLIRATVGILITTIASKGELQNPDLLPKLCSLLDSE
 DYNTCEGAFGALQKICEDSAEILDSVLDRLNIMIPKFLQFFKHSSPKIRSHAVACVNQFIISRTQALM
 LHIDSF IENL FALAGDEEA E VRKNVCRALVMLLEVRMDRLLPHMHNIVEYMLQRTQDQDENVALEACEFW
 LT LAEQPICKDVLVRHLPKLIPLVLVNGMKYSDIDIILLKGDVEEDETIPDSEQDIRPRFHRSRVAAQHE
 EDGIEEEDDDDEIDDDDTISDWNLRKCSAAALDVLANVYRDELLPHILPLLKELLFHHEWVYKESGILV
 LGAIAEGCMQGMIPYLP E L I P H L I Q C L S D K K A L V R S I T C W T L S R Y A H W V S Q P P D T Y L K P L M T E L L K R I L
 D S N K R V Q E A A C S A F A T L E E E A C T E L V P Y L A Y I L D T L V F A F S K Y Q H K N L L I L Y D A I G T L A D S V G H H L N K P E
 Y I Q M L M P P L I Q K W N M L K D E D K D L F P L L E C L S S V A T A L Q S G F L P Y C E P V Y Q R C V N L V Q K T L A Q A M L N N A Q P
 E Q Y E A P D K D F M I V A L D L L S G L A E G L G G N I E Q L V A R S N I L T L M Y Q C M Q D K M P E V R Q S S F A L L G D L T K A C F Q
 H V K P C I A D F M P I L G T N L N P E F I S V C N N A T W A I G E I S I Q M G I E M Q P Y I P M V L H Q L V E I I N R N P T P K T L L E N
 T A I T I G R L G Y V C P Q E V A P M L Q Q F I R P W C T S L R N I R D N E E K D S A F R G I C T M I S V N P S G V I Q D F I F F C D A V A
 S W I N P K D D L R D M F C K I L H G F K N Q V G D E N W R R F S D Q F P L P L K E R L A A F Y G V

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja2363_d04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



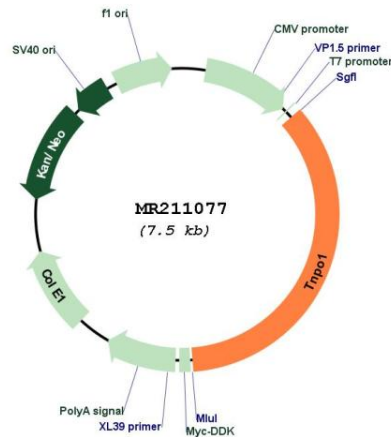
* The last codon before the Stop codon of the ORF

ACCN: NM_001048267

ORF Size:	2670 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	<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:	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
MW:	101.8 kDa

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]

Product images:


Circular map for MR211077