

Product datasheet for RC223103

TNPO3 (NM_012470) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | TNPO3 (NM_012470) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | TNPO3 |
| Synonyms: | IPO12; LGMD1F; LGMDD2; MTR10A; TRN-SR; TRN-SR2; TRNSR |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC223103 ORF sequence, codon optimized . Due to the complexity of NM_012470, the ORF clone is codon optimized for mammalian Expression. The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical. |

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGAAGGAGCAAAGCCGACATTGCAGCTCGTGTACCAGGCAGTGCAGGCGCTTTACCACGACCCAGATC
CCAGCGGAAAGGAGCGCGCCTCTTTTTGGCTTGGGGAGCTGCAGCGTTCCGGTTCATGCATGGGAGATCTC
AGACCAGTTGTTACAGATCCGGCAGGATGTGGAGTCATGCTATTTTGTCTGCACAGACCATGAAAAAGAAG
ATTCAGACCTCATTTTATGAGCTCCCCACAGACTCTCATGCCTCTTACGGGACTCATTGCATAACCCATA
TCCAGAACTTGAAAGACTTGTACCTGTTATTGTAACGCAGCTGGCTTTAGCAATAGCAGATCTTGCCCT
ACAGATGCCTTCTGGAAGGGATGTGTGCAAACTGGTGGAAAAATACAGCAATGATGTGACTTCTTTG
CCTTTTTTGTGGAGATCCTTACAGTGTACCTGAAGAAGTACATAGTCGTTCCCTACGAATTGGAGCTA
ATCGGCGCACAGAAATTATAGAAGATTTGGCCTTCTACTCTAGTACAGTAGTATCTTATTGATGACCTG
TGTAGAAAAAGCAGGAACAGATGAGAAAAATGCTTATGAAGGTTTTTCGCTGTTTGGGAAGTTGGTTAAC
TTGGGAGTTTTGGACAGTAACTTCATGGCTAACATAAAATTAAGTACTGCACTCCTTTTTGAGGTTTTGCAAC
AGGATAAGACCTCGTCTAACCTACATGAAGCTGCTTCGGACTGTGTATGCTCAGCTCTCTATGCCATTGA
GAATGTGGAGACTAACTTGCCATTAGCCATGCAACTTTTTTCAGGGAGTGTGACATTGGAGACTGCCTAT
CATATGGCCGTGGCAGTGAAGATTTAGACAAAGTTCTGAATTACTGCCGATTTTTCACTGAACTATGTG
AACTTTTTCTGAAAAAATTGTTGTACTCCAGGCCAAGTCTTGGGGACCTTCAACTCTGGAGCTGCT
GCTTATCTGTGCAGGCCATCCTCAATATGAGGTAGTAAAAATTTCAATTTAACTTTTTGGTACCGACTGGG
GAACATTTGTACAAAACAACTAACGATGAAGTTATTCATGGCATCTTCAAAGCTTACATTCAGAGGCTGCTTC



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ACGCCTTGGCTCGACTGCCAGCTGGAACCAGACCATGAGGGGGTTCCTGAGGAGACTGATGACTTTGG
 GGAGTTTCGCATGAGGGTATCAGACCTGGTAAAGGACTTGATTTTCTTGATAGGGTCTATGGAGTGT
 GCTCAGTTATATTCTACTCTGAAAGAAGGCAACCACCCTGGGAGGTGACAGAAGCGTTCTCTTATCA
 TGGCTGCTATAGCAAAGAGTGTGATCCGAAAACAATCCAACACTTGTGGAAAGTCTAGAAGGAGTTGT
 CCGCTCCCGGAGACCGTACATACGGCTGTGCGATACACCAGCATTGAATTGGTTGGAGAGATGAGTGAA
 GTCGTTGATCGAAATCCTCAGTTCCTTGACCCTGTGTTGGGCTATTTGATGAAAGGCCTGTGTGAAAAGC
 CCTTAAATGGACTCCTGGAGATTGCCCGCTCCCTCGATTCCCTTCTGTTGTCTCCAGAAGCTGCTGTGGC
 TTGCTAAAAGGGACAGCACTTGCTTAGCCGATTACCTTTGGATAAGATTACCGAATGTCTTAGTGAAC
 TATGTTCTGTTACAGTTATGGCATTGAAAAAGCTGTTGTCTCAAGAGCCCAGCAATGGCATATCCTCAGA
 TCCCACAGTGTCTTAGATCGCCTTGCACTGATATTTAGGCATACCAATCCCATTGTGAAAAATGGACAG
 ACTCATCCGTGTCAGAAAGTACACAGGAAATATGGCCAGTTTTATCCGAGACTTAAATAAGCACCGAG
 CTGATAATCGGATTGTAGAGCGTTGTTGCAGGTGCCTGCGCTTTGCTGTTGCTGTGAGCAAAGGATC
 TGCAGCACTGCTGCAGCCACTAGTACACAGATGGTGAATGTGTACCACGTACATCAGCATTCTGCTTC
 CTGTACCTTGGCAGTATCCTTGTGGATGAATATGGCATGGAAGAAGGCTGTCGGCAGGGACTGCTAGACA
 TGCTCCAGGCACTGTGCATCCCCACCTTCAGCTCCTAGAACAGCAGAATGGTCTCCAGAATCACCCCTGA
 CACTGTAGATGACCTGTTCCGGCTAGCCACCAGGTTTATTCAGCGTAGCCCTGTACCTTGTGCGGAGC
 CAAGTGGTCATCCCTATCTTACAGTGGGCCATTGCCTCTACTACCTGGACCACCGGGATGCCAATTGTA
 GTGTATGAGGTTTCTACGAGACCTCATTACATACAGGGGTAGCCAATGATCATGAAGAAGACTTTGAATT
 ACGGAAAGAACTGATTGGACAGGTGATGAACCAGCTTGGACAGCAGCTTGTGAGCCAGCTGCTGCACACC
 TGCTGCTTTTGCCTCCCCCTATACCTACCAGATGTGGCTGAAGTGTCTGGGAGATCATGCAGTTG
 ACAGACCGACTTTTTGTGATGGTTAGAAAATTCCTTAAAAGTTTCCAAAGGAAACAACCGTGGGAGC
 CGTCACAGTGACACAAAACAATTACAGACTTCCACAAGCAAGTCACTAGTGTGAGGAATGTAACAA
 GTTTGCTGGGCCCTGCGAGACTTACCAGGTTGTTTCGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC223103 representing NM_012470

Red=Cloning site Green=Tags(s)

MEGAKPTLQLVYQAVQALYHDPDPSPGKERASFWLGELQRSVHAWEISDQLLQIRQDVESCYFAAQTMKMK
 IQTSFYELPTDSHASLRDSSLTHIQNLKDLSPVIVTQLALAIADLALQMPSWKGCVQTLVEKYSNDVTSL
 PFLLEILTVLPEEVHSRSLRIGANRTEIIEDLAFYSSTVVSLMTCVEKAGTDEKMLMKVFRCLGSWFN
 LGVLDSNFMANNKLLALLFEVLQDQKSSNLHEAASDCVCSALYAIENVETNLPLAMQLFQGVLTLETAY
 HMAVAREDLKVLNYCRIFTELCETFLEKIVCTPGQGLDLRTLELLLICAGHPQYEVVEISFNFWYRLG
 EHLKYTNDEVIHGIFKAYIQRLHLALRHCQLEPDHEGVPEETDDFGEFRMRVSDLVKDLIFLIGSMECF
 AQLYSTLKEGNPPWEVTEAVLFIMAAIAKSVDPENNPTELVEVLEGVVRLPETVHTAVRYTSIELVGEMSE
 VVDRNPQFLDPVLGYLMKGLCEKPLASAAAKAIHNI CSVCRDHMAQHFNGLLEIARSLDSFLLSPEAAVG
 LLKGTALVLARLPLDKITECLSELCSVQVMALKKLLSQEPSNGISSDPTVFLDRLAVIFRHTNPIVENGQ
 THPCQKVIQEIWPVLSETLNKHRADNRIVERCCRCLRFVRCVKGKSAALLQPLVTQMVVYHVHQHSCF
 LYLGSILVDEYGMEEGCRQGLDMLQALCIPTFQLLEQQNGLQNHPTVDDLFRLATRFIQRSPVTLRLS
 QVVIPILQWAIASSTLDHRDANCVMRFLRDLIHTGVANDHEEDFELRKELIGQVMNQLGQQLVSQLLHT
 CCFCLPPYTLPDVAEVLWEIMQVDRPTFCRWLENSLKGLPKETTVGAVTVTHKQLTDFHKQVTSAECKQ
 VCWALRDFTRLFR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_012470

ORF Size: 2769 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: [NM_012470.4](#)

RefSeq Size: 4422 bp

RefSeq ORF: 2772 bp

Locus ID: 23534

UniProt ID: [Q9Y5L0](#)

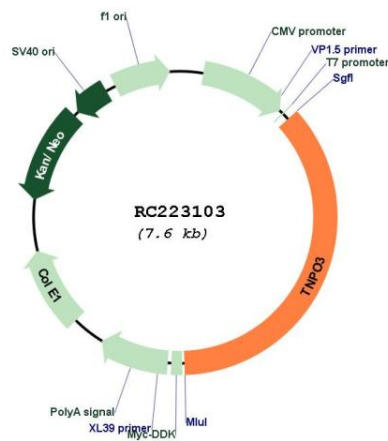
Cytogenetics: 7q32.1

Protein Families: Druggable Genome

MW: 104.2 kDa

Gene Summary: The protein encoded by this gene is a nuclear import receptor for serine/arginine-rich (SR) proteins such as the splicing factors SFRS1 and SFRS2. The encoded protein has also been shown to be involved in HIV-1 infection, apparently through interaction with the HIV-1 capsid protein. Several protein-coding and non-coding transcript variants have been found for this gene. [provided by RefSeq, Apr 2020]

Product images:



Circular map for RC223103