

Product datasheet for **RG223103**

TNPO3 (NM_012470) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TNPO3 (NM_012470) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TNPO3
Synonyms:	IPO12; LGMD1F; LGMDD2; MTR10A; TRN-SR; TRN-SR2; TRNSR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG223103 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**CGATCGCC**

ATGGAAGGAGCAAAGCCGACATTGCAGCTCGTGTACCAGGCAGTGCAGGCGCTTTACCACGACCCAGATC
CCAGCGAAAGGAGCGCGCCTCTTTTTGGCTTGGGGAGCTGCAGCGTTCCGGTTCATGCATGGGAGATCTC
AGACCAGTTGTTACAGATCCGGCAGGATGTGGAGTCATGCTATTTTGTCTGCACAGACCATGAAAAAGAAG
ATTCAGACCTCATTTTATGAGCTCCCCACAGACTCTCATGCCTCTTACGGGACTCATTGCTAACCCATA
TCCAGAACTTGAAAGACTTGTCACCTGTTATTGTAACGCAGCTGGCTTTAGCAATAGCAGATCTTGCCCT
ACAGATGCCTTCTGGAAGGGATGTGTGCAAACTGGTGGAAAAATACAGCAATGATGTGACTTCTTTG
CCTTTTTGCTGGAGATCCTTACAGTGTACCTGAAGAAGTACATAGTCGTTCCCTACGAATTGGAGCTA
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TGTAGAAAAAGCAGGAACAGATGAGAAAAATGCTTATGAAGGTTTTTCGCTGTTTGGGAAGTTGGTTAAC
TTGGGAGTTTTGGACAGTAACTTCATGGCTAACATAAAATTAAGTACTAGCACTCCTTTTTGAGTTTTGCAAC
AGGATAAGACCTCGTCTAACCTACATGAAGCTGCTTCGGACTGTGTATGCTCAGCTCTCTATGCCATTGA
GAATGTGGAGACTAACTTGCCATTAGCCATGCAACTTTTTTCAGGGAGTGTGACATTGGAGACTGCCTAT
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GCTTATCTGTGCAGGCCATCCTCAATATGAGGTAGTAAAAATTTCAATTTAACTTTTTGGTACCGACTGGG
GAACATTTGTACAAAACAACTAACGATGAAGTTATTCATGGCATCTTCAAAGCTTACATTCAGAGGCTGCTTC



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ACGCCTTGGCTCGACACTGCCAGCTGGAACCAGACCATGAGGGGGTTCCTGAGGAGACTGATGACTTTGG
GGAGTTTCGCATGAGGGTATCAGACCTGGTAAAGGACTTGATTTTCTTGATAGGGTCTATGGAGTGT
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CGTCACAGTGACACACAACAACATTACAGACTTCACAAGCAAGTCACTAGTGTGAGGAATGTAACAA
GTTTGTGGGCCCTTGCAGACTTCACCAGTTGTTTCGA
    
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG223103 representing NM_012470
 Red=Cloning site Green=Tags(s)

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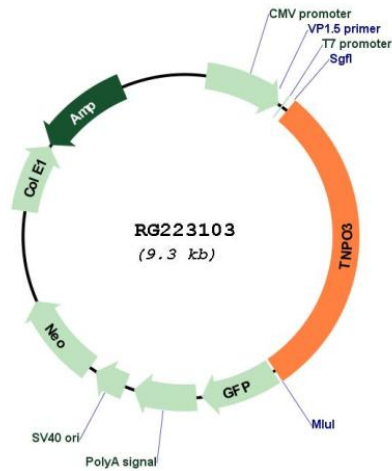
MEGAKPTLQLVYQAVQALYHDPDPSKERASFWLGELQRSVHAWEISDQLLQIRQDVESCYFAAQTMKMK
IQTSFYELPTDSHASLRDSSLTHIQNLKDLSPVIVTQLALAIADLALQMPQSWKGCVQTLVEKYSNDVTS
PFLLEILTVLPEEVHSRSLRIGANRRTEIIEDLAFYSSTVVSLLMTCVEKAGTDEKMLMKVFRCLGSWFN
LGVLDNSFMANNKLLALLFEVLQDQKSSNLHEAASDCVCSALYAIENVEINLPLAMQLFQGVLTLETAY
HMAVAREDLKVLNYCRIFTELCEFLKIVCTPGQGLDLRLELLLICAGHPQYEVVEISFNFWYRLG
EHLKYTNDEVIHGIKAYIQRLHLARHCQLEPDHEGVPEETDDFGEFRMRVSDLVKDLIFLIGSMECF
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VVDNRNPQFLDPVLGYLMKGLCEKPLASAAAKAIHNICSVCRDHMAQHFNGLLEIARSLDSFLLSPEAAVG
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THPCQKVIQEIWPV LSETLNKHRADNRIVERCCRLRFVAVRCVKGSAALLQPLVTQMNVYVHVHQHSCF
LYLGSILVDEYGMEEGCRQGLDMLQALCIPTFQLEQQNGLQNHPTVDDLFR LATRFIQRSPVTL LRS
QVVIPILQWAIASSTL DHRDANC SVMRFLRDLIHTGVANDHEEDFELRKELIGQVMNQLGQQLVLSQLLHT
CCFCLPPYTL PDVAEVLWEIMQVDRPTFCRWLENSL KGLPKETT VGAVTVTHKQL TDFHKQVTS AECKQ
VCWALRDFTRLFR
    
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TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Plasmid Map:


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:	<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_012470.4
RefSeq Size:	4422 bp
RefSeq ORF:	2772 bp
Locus ID:	23534
UniProt ID:	Q9Y5L0
Cytogenetics:	7q32.1
Protein Families:	Druggable Genome
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]