

Product datasheet for **RG224901**

TPOR (MPL) (NM_005373) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TPOR (MPL) (NM_005373) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TPOR
Synonyms:	C-MPL; CD110; MPLV; THCYT2; THPOR; TPOR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG224901 representing NM_005373
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCCTCTGGCCCTTTCATGGTCACCTCCTGCCTCCTCTGGCCCTCAAACCTGGCCCAAGTCA
 GCAGCCAAGATGTCTCCTTGCTGGCATCAGACTCAGAGCCCTGAAGTGTCTCCCGAACATTTGAGGA
 CCTCACTTGCTTCTGGGATGAGGAAGAGCAGCGCCAGTGGGACATACCAGCTGCTGTATGCTACCCG
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 CCTCCCAGGCCAGATGGACTACCGAAGATTGCAGCCTTCTTGCCTGGGACCATGCCCTGTCTGTGTG
 CCCACCATGGCTGAGTCAGGGTCTGTGTACCACCCACATTGCCAACCATCTACTACCTACCCTAAGC
 TATTGGCAGCAGCCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG224901 representing NM_005373
 Red=Cloning site Green=Tags(s)

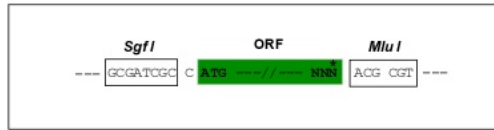
MPSWALFMVTSCLLLAPQNLAQVSSQDVSLLASDSEPLKCFSRTEFDLTCFWDDEEAAPSGTYQLLYAYP
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 RCHFCSRNDIIHILVEVTTAPGTVHSYLGSPFWIHQAVRLPTPNLHWREISSGHLELEWQHPSWAAQE
 TCYQLRYTGEGHQDWKVLPEPLGARGGTLELRPRSRYRLQLRRLNGPTYQGPWSSWSDPTRVETATETA
 WISLVTAHLVGLSAVLGLLLLRWQFPAHYRRLRHALWPSLPDLHRVLGQYLRDTAALSPPKATVSDTC
 EEVEPSLLEILPKSSERTPLPLCSSQAQMDYRRLQPSCLGTMPLSVCPMAESGSCCTTHIANHSYPLS
 YWQQP

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM_005373

ORF Size: 1905 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_005373.3](#)

RefSeq Size: 3646 bp

RefSeq ORF: 1908 bp

Locus ID: 4352

UniProt ID: [P40238](#)

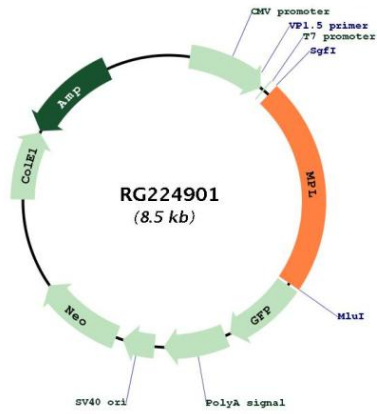
Cytogenetics: 1p34.2

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway

Gene Summary: In 1990 an oncogene, v-mpl, was identified from the murine myeloproliferative leukemia virus that was capable of immortalizing bone marrow hematopoietic cells from different lineages. In 1992 the human homologue, named, c-mpl, was cloned. Sequence data revealed that c-mpl encoded a protein that was homologous with members of the hematopoietic receptor superfamily. Presence of anti-sense oligodeoxynucleotides of c-mpl inhibited megakaryocyte colony formation. The ligand for c-mpl, thrombopoietin, was cloned in 1994. Thrombopoietin was shown to be the major regulator of megakaryocytopoiesis and platelet formation. The protein encoded by the c-mpl gene, CD110, is a 635 amino acid transmembrane domain, with two extracellular cytokine receptor domains and two intracellular cytokine receptor box motifs. TPO-R deficient mice were severely thrombocytopenic, emphasizing the important role of CD110 and thrombopoietin in megakaryocyte and platelet formation. Upon binding of thrombopoietin CD110 is dimerized and the JAK family of non-receptor tyrosine kinases, as well as the STAT family, the MAPK family, the adaptor protein Shc and the receptors themselves become tyrosine phosphorylated. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG224901