

Product datasheet for SC328518

OriGene Technologies, Inc.

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Thrombopoietin (THPO) (NM_001177598) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Thrombopoietin (THPO) (NM_001177598) Human Untagged Clone

Tag: Tag Free Symbol: THPO

Synonyms: MGDF; MKCSF; ML; MPLLG; THCYT1; TPO

Mammalian Cell None

Selection:

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >NCBI ORF sequence for NM_001177598, the custom clone sequence may differ by one or

more nucleotides

ATGGAGCTGACTGAATTGCTCCTCGTGGTCATGCTTCTCCTAACTGCAAGGCTAACGCTG TCCAGCCCGGCTCCTCCTGCTTGTGACCTCCGAGTCCTCAGTAAACTGCTTCGTGACTCC CATGTCCTTCACAGCAGACTGAGCCAGTGCCCAGAGGTTCACCCTTTGCCTACACCTGTC CTGCTGCCTGCTGTGGACTTTAGCTTGGGAGAATGGAAAACCCAGATGGAGGAGACCAAG CAACTGGGACCCACTTGCCTCTCATCCCTCCTGGGGCAGCTTTCTGGACAGGTCCGTCTC CTCCTTGGGGCCCTGCAGAGCCTCCTTGGAACCCAGGACCACAGCTCACAAGGATCCCAA TGCCATCTTCCTGAGCTTCCAACACCTGCTCCGAGGAAAGGTGCGTTTCCTGATGCTTGT CTCTCTAGTCCTCACACTGAACGAGCTCCCAAACAGGACTTCTGGATTGTTGGAGACAAA CTTCACTGCCTCAGCCAGAACTACTGGCTCTGGGCTTCTGAAGTGGCAGCAGGGATTCAG AGCCAAGATTCCTGGTCTGCTGAACCAAACCTCCAGGTCCCTGGACCAAATCCCCGGATA CCTGAACAGGATACACGAACTCTTGAATGGAACTCGTGGACTCTTTCCTGGACCCTCACG CAGGACCCTAGGAGCCCCGGACATTTCCTCAGGAACATCAGACACAGGCTCCCTGCCACC CAACCTCCAGCCTGGATATTCTCCTTCCCCAACCCATCCTCCTACTGGACAGTATACGCT CTTCCCTCTTCCACCCACCTTGCCCACCCCTGTGGTCCAGCTCCACCCCCTGCTTCCTGA

Restriction Sites: Please inquire **ACCN:** NM 001177598

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).



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OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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: <u>NM 001177598.1</u>, <u>NP 001171069.1</u>

 RefSeq Size:
 1788 bp

 RefSeq ORF:
 960 bp

 Locus ID:
 7066

 UniProt ID:
 P40225

 Cytogenetics:
 3q27.1

Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: Hematopoietic cell lineage

Gene Summary: Megakaryocytopoiesis is the cellular development process that leads to platelet production.

The main functional protein encoded by this gene is a humoral growth factor that is necessary for megakaryocyte proliferation and maturation, as well as for thrombopoiesis. This protein is the ligand for MLP/C_MPL, the product of myeloproliferative leukemia virus oncogene. Mutations in this gene are the cause of thrombocythemia 1. Alternative promoter usage and differential splicing result in multiple transcript variants differing in the 5' UTR and/or coding region. Multiple AUG codons upstream of the main open reading frame (ORF) have been identified, and these upstream AUGs inhibit translation of the main ORF at

different extent. [provided by RefSeq, Feb 2014]

Transcript Variant: This variant (3) represents use of the downstream promoter and comprises six exons. It uses an alternate splice site in the 3' coding region, which results in a frameshift, compared to variant 1. The resulting isoform (3) has a shorter and distinct C-terminus, compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on

transcript alignments.