

Product datasheet for RC221324

Thrombopoietin (THPO) (NM_000460) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Thrombopoietin (THPO) (NM_000460) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Thrombopoietin
Synonyms:	MGDF; MKCSF; ML; MPLL; THCYT1; TPO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221324 representing NM_000460 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGAGCTGACTGAATTGCTCCTCGTGGTCATGCTTCTCCTAACTGCAAGGCTAACGCTGTCCAGCCCGG
CTCCTCTGCTTGTGACCTCCGAGTCCAGTAACTGCTTCGTGACTCCCATGCTCTTACAGCAGACT
GAGCCAGTCCCAGAGGTTACCCTTTGCCTACACCTGCTGCTGCCTGCTGTGGACTTAGCTTGGGA
GAATGGAAAACCCAGATGGAGGAGACCAAGGCACAGGACATTCTGGGAGCAGTGACCCTTCTGCTGGAGG
GAGTGATGGCAGCACGGGACAACCTGGGACCCACTTGCCTCTCATCCCTCTGGGGCAGCTTCTGGACA
GGTCCGTCTCCTCTTGGGGCCCTGCAGAGCCTCCTTGAACCCAGCTTCTCCACAGGGCAGGACCACA
GCTCACAAGGATCCCAATGCCATCTTCTGAGCTTCCAACACCTGCTCCGAGGAAAGGTGCGTTTCTGA
TGCTTGTAGGAGGGTCCACCCTCTGCGTCAGGCGGGCCCCACCCACCACAGCTGTCCCAGCAGAACCTC
TCTAGTCTCACACTGAACGAGCTCCCAAACAGGACTTCTGGATTGTTGGAGACAAACTTCACTGCCTCA
GCCAGAACTACTGGCTCTGGCTTCTGAAGTGGCAGCAGGGATTGAGGCAAGATTCTGGTCTGCTGA
ACCAAACCTCCAGGTCCTGGACCAATCCCCGGATACCTGAACAGGATACACGAACTCTGAATGGAAC
TCGTGGACTCTTCTGGACCTCACGCAGGACCTAGGAGCCCCGGACATTTCTCAGGAACATCAGAC
ACAGGCTCCCTGCCACCAACCTCCAGCCTGGATATTCTCCTTCCCAACCCATCCTCTACTGGACAGT
ATACGCTTCTCCCTCTTCCACCACCTTGCCCACCCCTGTGGTCCAGCTCCACCCCTGCTTCTGACCC
TTCTGCTCCAACGCCACCCCTACCAGCCCTTCTAAACACATCTACACCCACTCCCAGAATCTGTCT
CAGGAAGGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC221324 representing NM_000460
 Red=Cloning site Green=Tags(s)

MELTELLLVMLLLTARLTLSSPAPPACDLRVLKLLRDSHVLHSRLSQCEVHPLPTPVLLPAVDFSLG
 EWKTQMEETKAQDILGAVTLLLLEGVMAARGQLGPTCLSSLLGQLSGQVRLLLGALQSLGTQLPPQGRRT
 AHKDPNAIFLSFQHLLRGKVRFLMLVGGSTLCVRRAPPTAVPSRTSLVLTNLNLPNRTSGLLETNFTAS
 ARTTGSGLLKWQQGFRAKIPGLLNQTSRSLDQIPGYLNRHELLNGTRGLFPGPSRRTLGPDISSGTSD
 TGSLLPNNLQPGYSPSPHTPPTGQYTLFPLPPTLPTPVVQLHPLLDPDSAPTPPTPSPLLNTSYTHSQNLS
 QEG

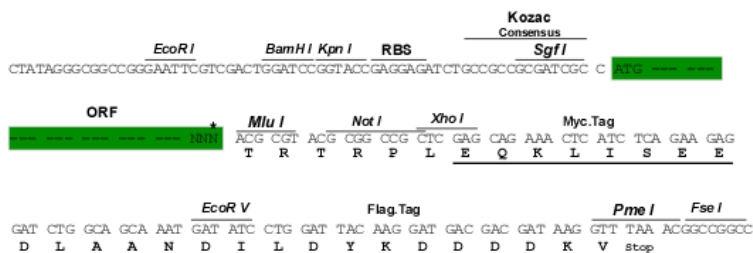
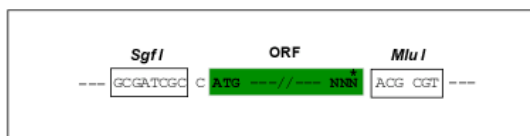
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3859_a05.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_000460

ORF Size: 1059 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_000460.4](#)

RefSeq Size: 1805 bp

RefSeq ORF: 1062 bp

Locus ID: 7066

UniProt ID: [P40225](#)

Cytogenetics: 3q27.1

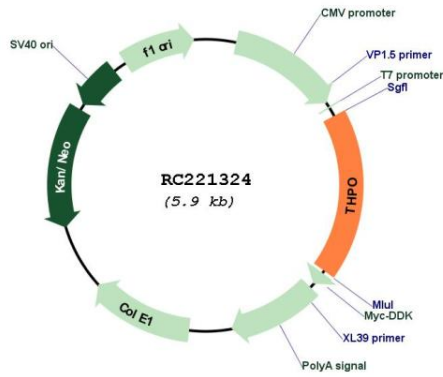
Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: Hematopoietic cell lineage

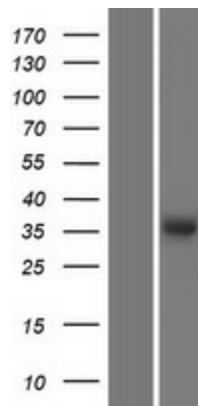
MW: 37.82 kDa

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]

Product images:



Circular map for RC221324



Western blot validation of overexpression lysate (Cat# [LY424704]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221324 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).