

## Product datasheet for **RG221324**

### 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:	TurboGFP
Symbol:	THPO
Synonyms:	MGDF; MKCSF; ML; MPLL; THCYT1; TPO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG221324 representing NM_000460 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCTGACTGAATTGCTCCTCGTGGTCATGCTTCTCCTAACTGCAAGGCTAACGCTGTCCAGCCGG  
CTCCTCTGCTTGTGACCTCCGAGTCCAGTAACTGCTTCGTGACTCCCATGTCCTTCACAGCAGACT  
GAGCCAGTGCCAGAGGTTACCCTTTGCCTACACCTGCTGCTGCCTGCTGTGGACTTAGCTTGGGA  
GAATGGAAAACCCAGATGGAGGAGACCAAGGCACAGGACATTCTGGGAGCAGTGACCCTTCTGCTGGAGG  
GAGTGATGGCAGCACGGGACAACCTGGGACCCACTTGCCTCTCATCCCTCTGGGGCAGCTTCTGGACA  
GGTCCGTCTCCTCTGGGGCCCTGCAGAGCCTCCTTGAACCCAGCTTCTCCACAGGGCAGGACCACA  
GCTCACAAGGATCCCAATGCCATCTTCTGAGCTTCCAACACCTGCTCCGAGGAAAGGTGCGTTTCTGA  
TGCTTGTAGGAGGGTCCACCCTCTGCGTCAGGCGGGCCCCACCCACCACAGCTGTCCCAGCAGAACCTC  
TCTAGTCTCACACTGAACGAGCTCCCAAACAGGACTTCTGGATTGTTGGAGACAAACTTCACTGCCTCA  
GCCAGAACTACTGGCTCTGGCTTCTGAAGTGGCAGCAGGGATTGAGGCAAGATTCTGGTCTGCTGA  
ACCAAACCTCCAGGTCCTGGACCAATCCCGGATACCTGAACAGGATACACGAACTCTGAATGGAAC  
TCGTGGACTCTTCTGGACCTCACGCAGGACCTAGGAGCCCCGGACATTTCTCAGGAACATCAGAC  
ACAGGCTCCCTGCCACCAACCTCCAGCCTGGATATTCTCCTTCCCAACCCATCCTCTACTGGACAGT  
ATACGCTTCTCCCTCTTCCACCCACTTGCCACCCCTGTGGTCCAGCTCCACCCCTGCTTCTGACCC  
TTCTGCTCCAACGCCACCCCTACCAGCCCTTCTAAACACATCTACACCCACTCCAGAACTGTCT  
CAGGAAGGG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG221324 representing NM\_000460  
 Red=Cloning site Green=Tags(s)

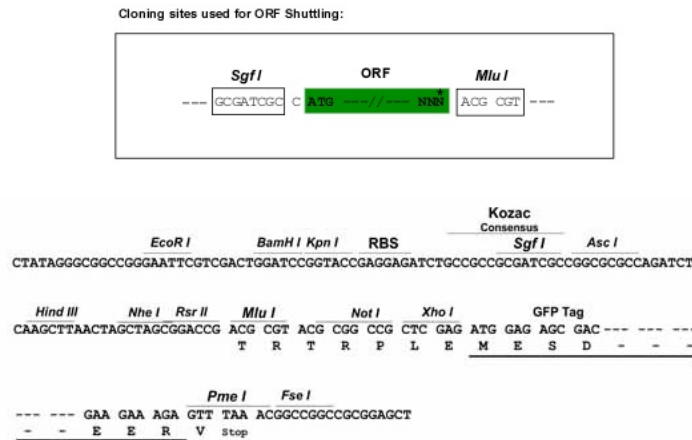
MELTELLLVMLLLLTARLTLSSPAPPACDLRVLSKLLRDSHVLHSRLSQCEVHPLPTPVLLPAVDFSLG  
 EWKTQMEETKAQDILGAVTLLLEGVMAARGQLGPTCLSSLLGQLSGQVRLLLGALQSLGTLPPQGRRT  
 AHKDPNAIFLSFQHLRQKVRFLMLVGGSTLCVRRAPPTAVPSRTSLVLTNLNPNRTSGLLETNFTAS  
 ARTTGSGLLKQQGFRKIPGLLNQTSRSLDQIPGYLNRIHELINGTRGLFPGPSRRTLGPDISSGTSD  
 TGSLLPNNLQPGYSPSPHPTGQYTLFPLPPTLPTPVVQLHPLLDPSPAPTPTPTSPLLNTSYTHSQNLS  
 QEG

TRTRPLE - GFP Tag - V

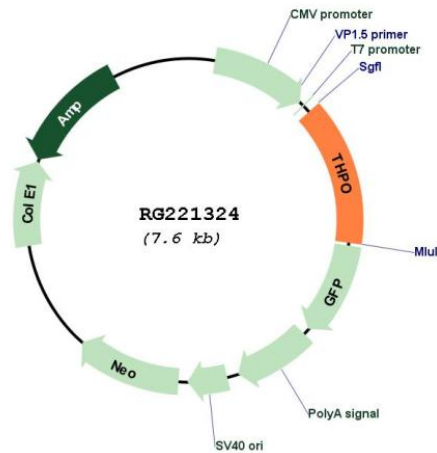
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:**

NM\_000460

<b>ORF Size:</b>	1059 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_000460.4</a>
<b>RefSeq Size:</b>	1805 bp
<b>RefSeq ORF:</b>	1062 bp
<b>Locus ID:</b>	7066
<b>UniProt ID:</b>	<a href="#">P40225</a>
<b>Cytogenetics:</b>	3q27.1
<b>Protein Families:</b>	Druggable Genome, Secreted Protein
<b>Protein Pathways:</b>	Hematopoietic cell lineage
<b>Gene Summary:</b>	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 thrombocytopenia 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]