

Product datasheet for **MG222690**

Eng (NM_001146350) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eng (NM_001146350) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Eng
Synonyms:	A1528660; A1662476; CD105; Endo; S-endoglin
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG222690 representing NM_001146350
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGACCGTGGCGTGCTCCCTCTGCCATTACCCTGCTGTTTGTATCTATAGCTTTGTACCCACAACAG
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 CATCTATTCTCACACACGTGAGTATCCCAAGCCTCCACCCATTCCACAGCAAGCGCTCAGGGCCCGTC
 CACACCACCCCGGGGCACACCCAGTGGAGCCTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

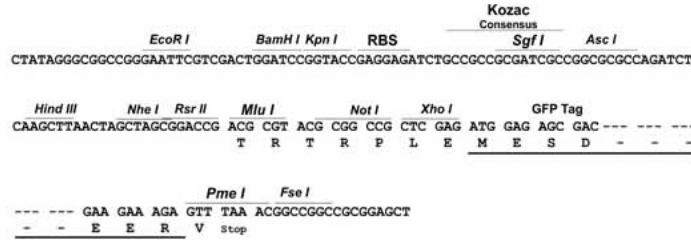
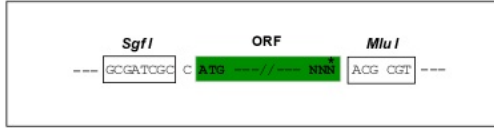
>MG222690 representing NM_001146350
 Red=Cloning site Green=Tags(s)

MDRQVLPITLLFVIYSFVPTTGLAERVGDLPVDPTRGEVFTTTSQVSEGCVAQAANAVREVHVLFL
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 LEGVSGHKEAYILRILPGSEAGPRTVTVMELSCTSGDAIILHGPPYVSWFIDINHSMQILTTGEYSVK
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 DSCHLDLGPEDMVLEIQSRTAKGSCVTLSPSPEGDPFRSFLLRVYMPVPTAGTLSCLNLRPSTLSQ
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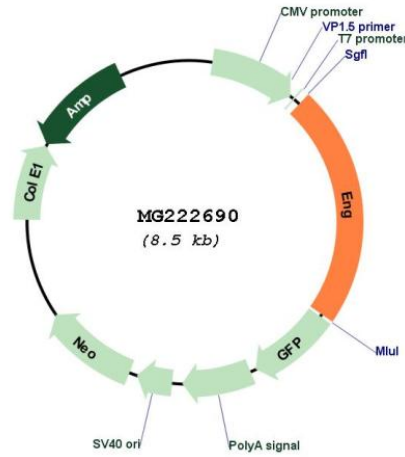
TRTRPLE – GFP Tag – V

Chromatograms: https://cdn.origene.com/chromatograms/ja1732_f04.zip
 Restriction Sites: SgfI-MluI
 Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001146350
 ORF Size: 1923 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_001146350.1 , NP_001139822.1
RefSeq Size:	3572 bp
RefSeq ORF:	1926 bp
Locus ID:	13805
Cytogenetics:	2 22.09 cM
Gene Summary:	Vascular endothelium glycoprotein that plays an important role in the regulation of angiogenesis (PubMed:10625534). Required for normal structure and integrity of adult vasculature (By similarity). Regulates the migration of vascular endothelial cells (PubMed:17540773). Required for normal extraembryonic angiogenesis and for embryonic heart development (PubMed:10625534). May regulate endothelial cell shape changes in response to blood flow, which drive vascular remodeling and establishment of normal vascular morphology during angiogenesis (PubMed:28530658). May play a role in the binding of endothelial cells to integrins. Acts as TGF-beta coreceptor and is involved in the TGF-beta/BMP signaling cascade that ultimately leads to the activation of SMAD transcription factors (PubMed:23300529). Required for GDF2/BMP9 signaling through SMAD1 in endothelial cells and modulates TGFB1 signaling through SMAD3 (By similarity). [UniProtKB/Swiss-Prot Function]