

## Product datasheet for **MG222686**

### Eng (NM\_007932) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Eng (NM_007932) 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:**

>MG222686 representing NM\_007932  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGACCGTGGCGTGCTCCCTCTGCCATTACCCTGCTGTTTGTATCTATAGCTTTGTACCCACAACAG  
 GTCTCGCAGAAAAGAGTCGGCTGTGATCTACAGCCTGTGGACCCCAAGGGGTGAGGTGACGTTTACCAC  
 CAGCCAGGTCTCCGAGGGCTGTGTAGCTCAGGCTGCCAATGCTGTGCGTGAAGTCCACGTTCTCTTCTG  
 GATTTTCCCGAATGCTGTACATCTGGAGCTGACTCTTCAGGCATCCAAGCAAAATGGCACGGAGACCC  
 AGGAGGTGTTCTGGTCTCGTTTGAACAAAAATGTCTTCGTGAAGTCCAGGCCCGGAAATCCCATT  
 GCATTGGCTACGACTCCAGCTGGTCACTTCCAAGGACAGCCAAGAGTCAACATCACAGTGTACCA  
 TCCCTTACCTCCAGGAACAGATCCTCGACTGGCAGCCACCAAGGGCGCCATCACCTCGATAGCAGCAC  
 TGGATGACCCCAAGCATCGTCTCCAGTTGGCCAAGACCAAGGCCACCATCTTGTGCTTGCCAGA  
 AGCTCACAAAGGACATGGGCGCCACACTTGAATGGCAACCAGAGCCAGACCCAGTCCAAGCTGTGCG  
 TTGGAAGGTGTGCTGGCCACAAGGAGGCTACATCCTGAGGATCCTGCCAGTTCTGAGGCCGGGCCCC  
 GGACGGTGACCGTAATGATGGAAGTGAAGTGCACATCTGGGGACGCCATTCTCATCTGCATGGTCTCC  
 ATATGTCTCCTGGTTCATCGACATCAACCACAGCATGCAGATCTTGACCACAGGTGAATACTCCGTCAAG  
 ATCTTTCCAGGAAGCAAGGTCAAAGGCTGGAGCTCCCAGACACACCCCAAGGCCGTATAGCGGAGGCC  
 GCAAGCTCAATGCCAGCATTGTACCTCCTTTGTAGAGTCCCTCTGGTCAAGTGTCTCCCTGAGGGC  
 CTCCAGCTGCGGTGGTGTGTTCCAGACCACCCCTGCACCCGTTGTGACCACACCTCCAAGGACACATGC  
 AGCCCCGTGCTACTCATGTCCCTGATCCAGCAAAAGTGGCAATCAGGTGATGACTCTGGCACTCAATA  
 AAAAAACAGTGCAGACTCTCCAGTGCACCATCACAGGCTGACTTCTGGGACTCCAGTGCACCCGCTGA  
 AGACACTGACGACCATCTTGTCTGAGTAGCGCCTACTCCAGCTGCGGCATGAAAGTGACAGCCCATGTG  
 GTCAGCAATGAGGTGATCATCAGTTTCCCGTCAAGGCTCACCACCACTTCGAAAAAGGTACAGTGCATCG  
 ACATGGACAGCCTCTCCTCCAGCTGGGCTCTACCTCAGCCGCACTTCTCCAGGCATCCAACACCAT  
 CGAACTAGGCCAGCAGGCTTCTGACAGGTGAGCGTGTCTCCATTGACCTCTGAGGTACAGTCCAGCTA  
 GATAGCTGCCATCTGGACTTGGGCCCCAAGGGGACATGGTGAAGTCACTCCAGAGCCGAACAGCCAAGG  
 GCAGCTGTGTGACCTTGTGTCTCAAGCCCTGAAGGTGACCCACGCTTCACTTCTCCTCCGGGTCTA  
 CATGGTCCCACACCCACCGCTGGCACCCTCAGTTGCAACTTAGCTCTGCGCCCTAGCACCTTGTCCAG  
 GAAGTCTACAAGACAGTCTCCATGCGCCTGAACATCGTCAGCCCTGACCTGTCTGGTAAAGCCCTGTCC  
 TGCCCTCTGTACTGGGTATCACCTTTGGTGCCTTCTGATTGGGGCCCTGCTCACAGCTGCACTCTGGTA  
 CATCTATTCTCACACACGTGGCCCCAGCAAGCGGGAGCCCGTGGTGGCAGTGGCTGCCCCGGCTCCTCT  
 GAGAGCAGCAGTACCAACCACAGCATCGGGAGCACCCAGAGCACCCCTGCTCCACCAGCAGCATGGCG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG222686 representing NM\_007932  
 Red=Cloning site Green=Tags(s)

MDRGVLPITLLFVIYSFVPTTGLAERVGCDLQVPDPTRGEVFTTTSQVSEGCVAQAANAVREVHVLFL  
 DFPGMLSHLELTLQASKQNGTETQEVFLVLSNKNVFKFQAPEIPLHLAYDSSLVIFQGQPRVNITVLP  
 SLTSRQKILDWAATKGAITSIAALDDPQSIVLQLGQDPKAPFLCLPEAHKDMGATLEWQPRAQTPVQSCR  
 LEGVSGHKEAYILRILPGSEAGPRTVTVMELSCTSGDAILILHGPPYVSWFIDINHSMQILTTGEYSVK  
 IFPGSKVKGVELPDPQGLIAEARKLNASIVTSFVELPLVSNVSLRASSCGGVFQTPAPVVTTTPPKDTC  
 SPVLLMSLIQPKCGNQVMTLALNKKHVQLQCTITGLTFWDDSSQAEDTDDHLVLSAYSSCGMKVTAHV  
 VSNEVIISFSPSGSPPLRKKVQCIDMDSLSQLGLYLSPHFLQASNTIELGQAFVQVSVSPLTSEVTVQL  
 DSCHLDLGPEDMVLIQSRTAKGSCVTLSPSPEGDPFRSFLLRVYMPVPTAGTLSCLNLRPSTLSQ  
 EYKTVSMRLNIVSPDLGKGLVPSVLGITGAFILIGALLTAALWYIYSHTRGPKREPVVAVAAAPASS  
 ESSSTNHSIGSTQSTPCSTSSMA

**TRTRPLE** - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM\_007932

ORF Size: 1959 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\\_007932.2](#), [NP\\_031958.2](#)

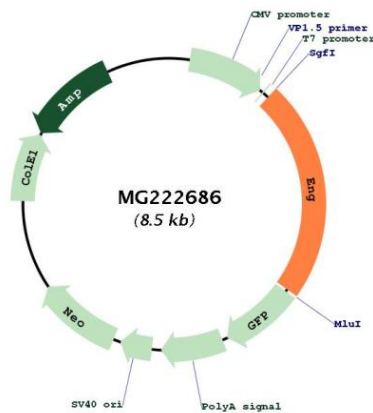
RefSeq Size: 3433 bp

RefSeq ORF: 1962 bp

**Locus ID:** 13805  
**UniProt ID:** [Q63961](#)  
**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]

**Product images:**



Circular map for MG222686