

Product datasheet for **MR222686**

Eng (NM_007932) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eng (NM_007932) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Eng
Synonyms:	A1528660; A1662476; CD105; Endo; S-endoglin
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR222686 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGACCGTGGCGTGCTCCCTCTGCCATTACCCTGCTGTTTGTATCTATAGCTTTGTACCCACAACAG
 GTCTCGCAGAAAGAGTCGGCTGTGATCTACAGCCTGTGGACCCACAAGGGGTGAGGTGACGTTTACCAC
 CAGCCAGGTCTCCGAGGGCTGTGTAGCTCAGGCTGCCAATGCTGTGCGTGAAGTCCACGTTCTCTTCTG
 GATTTTCCCGAATGCTGTACATCTGGAGCTGACTCTTCAGGCATCCAAGCAAAATGGCACGGAGACCC
 AGGAGGTGTTCTGGTCTCGTTTGAACAAAAATGTCTTCGTGAAGTCCAGGCCCGGAAATCCCATT
 GCATTGGCTACGACTCCAGCCTGGTCACTTCCAAGGACAGCCAAGAGTCAACATCACAGTGTACCA
 TCCCTTACCTCCAGGAAACAGATCCTCGACTGGGACGCCACCAAGGGCGCCATCACCTCGATAGCAGCAC
 TGGATGACCCCAAGCATCGTCTCCAGTTGGGCAAGACCCAAAGGCACCATTCTGTGCTTGCCAGA
 AGCTCACAAAGGACATGGGCGCCACACTTGAATGGCAACCAGAGCCAGACCCAGTCCAAGCTGTGCG
 TTGGAAGGTGTGTCTGGCCACAAGGAGGCTACATCCTGAGGATCCTGCCAGTTCTGAGGCCGGGCCCC
 GGACGGTGACCGTAATGATGGAAGTGAAGTGCACATCTGGGACGCCATTCTCATCTGCATGGTCTCC
 ATATGTCTCCTGGTTCATCGACATCAACCACAGCATGCAGATCTTGACCACAGGTGAATACTCCGTCAAG
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 GCAAGCTCAATGCCAGCATTGTACCTCCTTTGTAGAGCTCCCTCTGGTCAAGATGTCTCCCTGAGGGC
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 AGCCCCGTGCTACTCATGTCCCTGATCCAGCAAAGTGTGGCAATCAGGTCACTGACTCTGGCACTCAATA
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 CGAACTAGGCCAGCAGGCCTTCGTACAGGTGAGCGTGTCTCCATTGACCTCTGAGGTACAGTCCAGCTA
 GATAGCTGCCATCTGGACTTGGGCCCCGAAGGGGACATGGTGGAACTCATCCAGAGCCGAACAGCCAAGG
 GCAGCTGTGTGACCTTGCTGTCTCAAGCCCTGAAGGTGACCCACGCTTCACTTCTCCTCCGGGTCTA
 CATGGTGCCACACCCACCGCTGGCACCCTCAGTTGCAACTTAGCTCTGCGCCCTAGCACCTTGCCAG
 GAAGTCTACAAGACAGTCTCCATGCGCCTGAACATCGTCAGCCCTGACCTGTCTGGTAAAGGCCTTGTC
 TGCCCTCTGACTGGGTATCACCTTTGGTGCCTTCTGATTGGGGCCCTGCTCACAGCTGCACTCTGGTA
 CATCTATTCTCACACACGTGGCCCCAGCAAGCGGGAGCCCGTGGTGGCAGTGGCTGCCCCGGCTCCTCT
 GAGAGCAGCAGTACCAACCACAGCATCGGGAGCACCCAGAGCACCCCTGCTCCACCAGCAGCATGGCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR222686 protein sequence
Red=Cloning site Green=Tags(s)

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MDRGVLPITLLFVIYSFVPTTGLAERVGCDLQVPDPTRGEVFTTTSQVSEGCVAQAANAVREHVHFL
DFPGMLSHLELTLQASKQNGTETQEVLVLSNKNVFKVQAPEIPLHLAYDSSLVIFQGQPRVNITVLP
SLTSRKQILDWAATKGAITZIAALDDPQSIVLQLGQDPKAPFLCLPEAHKDMGATLEWQPRAQTPVQSCR
LEGVSGHKEAYILRILPGSEAGPRVTVMELSCTSGDAILILHGPPYVSWFIDINHSMQILTTGEYSVK
IFPGSKVKGVELPDPQGLIAEARKLNASIVTSFVELPLVSNVSLRASSCGGVFQTPAPVVTTPPKDTC
SPVLLMSLIQPKCGNQVMTLALNKKHVQTLQCTITGLTFWSSCQAEEDDHLVLSAYSSCGMKVTAHV
VSNEVIISFSPSGSPPLRKKVQCIDMDSLSQLGLYLSPHFLQASNTIELGQAFVQVSVSPLTSEVTQQL
DSCHLDLGPEDMVELIQSRTAKGSCVTLSPSPEGDPFRSFLLRVYMPVPTAGTLCNLALRPSTLSQ
EYKTVSMRLNIVSPDLGKGLVLPVSLGITFGAFLIGALLTAALWYIYSHTRGPKREPVVAVAPASS
ESSSTNHSIGSTQSTPCSTSSMA
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_007932

ORF Size: 1962 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.

RefSeq: [NM_007932.2](#), [NP_031958.2](#)

RefSeq Size: 3433 bp

RefSeq ORF: 1962 bp

Locus ID: 13805

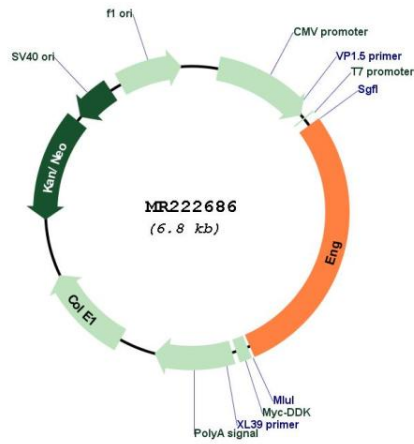
UniProt ID: [Q63961](#)

Cytogenetics: 2 22.09 cM

MW: 70 kDa

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 MR222686