

Product datasheet for **MR208427**

Hrg (NM_053176) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hrg (NM_053176) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hrg
Synonyms:	A1265597; AW413091; D16jh2; D18020; Hprg; Hrgp
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR208427 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGGTGCTCACCACAGCATTGCTTCTAGTCACCCCTGCAGTGTCCCATGCCCTGAGTCCCACCAACT
 GTGATGCTTCTGAGCCTCTGGCTGAGAAAAGTTCTAGACCTGATCAATAAAGGGCGGAGGAGTGGCTATGT
 TTTGAGCTGCTGCGGGTCTCTGACGCCCACTTGACAGAGCGGGAACGGCCACAGTCTACTACTTAGCT
 TTAGATGTGATAGAGTCTGACTGTTGGGTCTTTCCACAAAAGCCAGGATGACTGTCTTCCATCGAGGT
 GGCAATCTGAAATAGTGATTGGACAATGTAAGGTAATAGCCACAAGATACTCAAATGAGTCTCAAGATCT
 TAGCGTGAATGGCTATAACTGCACCACAAGTCTGTCTTTCAGCACTTCGCAATACCAAGGACAGTCTCT
 GTACTCTGGACTTCTTTGAGGATTCGAGCTCTACAGAAAGCAAGCCCGTAAAGCCCTGGACAAGTACA
 AAACGGATAATGGTGACTTTGCCTTTTCAGAGTGGACGGGCAGAACGGGTTATAAGAGCGAGAGGAGG
 GGAAGAACAATTACTATGTGGAATTCATGAGGAAGTCCACACAGCATTTCGCCAGGTCCCTCT
 CTGGTCTTTGGATTCTGCAGAGCACTTTTGCCTACAGTATAGAAACCTCTGACTTGGAAACCCAGATT
 CCATTGATATAAACTGCGAAGTCTTCAACATTGAGGATCATAAAGACACAAAGTGACATGAAACCCATTG
 GGGCCATGAGCGTCTCTTTGTGACAAACATCTGTGTAAGCTCAGTGGATCCAGGGATCATCATCATAACC
 CATAAGACAGATAAACTTGGATGCCACCTCCACCAGAAGGAAAAGATAACTCAGACAGACCACGCCTTC
 AAGAAGGAGCCCTCCACAACCTGCCCTTGCTATCCCCCTATTCTGGTGCCACAGAACCATAGACC
 CTCTTATAATCACAGTTGTAATGAGCATCCTTGTGATGGACATCGTCCCATGGACACCACCCACAGT
 CACCATCCCCCGGTACCATTCCCATGGTCACCATCCCACGGTACCATCCCCACAGTACCATTCCC
 ACGGTACCATCCCCCGGTACCATCCCATGGTCACCACCCACGGTACCATCCCCATGGTCACCA
 TCCCCACGGTACCATCCTCATGGACATGACTTCTTGACTATGGACTTGTGACCCGCCCTCCAATAGT
 CAAGAACTCAAAGGTGAGTATCATCGGGCTATGGTCCACCACATGGACACTCAAGAAAAAGAGTCCAG
 GCAAAGGACTCTTTCTTTCCACCACCAACAAATTGGATATGTCTACCGACTCCCTCCACTGAATATAGG
 TGAAGTCTCACTCTTCTGAAGCAATTTCCCCAGTCTCTTTGCCAAATTGCAACAGATCCCTACAA
 CCAGAGATTAGCCCTCCCTCAGACAGCCTCCAGGTATGTCCAGGAAATTTGAGAGTGAATTTCCAC
 AAATTTCAAGTTTTTTGGATATACACCTCCAAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR208427 protein sequence
 Red=Cloning site Green=Tags(s)

MKVLTTALLLVTLQCShALSPtncDASEPLAEKVLDLINKGRRSGYVFELLRVSDAHLDRAGTATVYYLA
 LDVIESDCWVLSKAQDDCLPSRWQSEIVIGQCKVIATRYSNESQDLVNGYNCTTSSVSSALRNTKDSP
 VLLDFEFDESEL YRKQARKALDKYKTDNGDFASFRVERAERVIRARGGERTNYYVEFSMRNCSTQHFRSP
 LVFGFCRALLSYIETSdleTPDSIDINCEVFNIEdHKDTSDMKPHWghERPLCDKHLCKLSGRDHHHT
 HKTDKLGCPpPEgKDNsDRpRLQEGALPQLPPGYPPHSGANRTHRPSYnHSCNEHPCHGHRPHGHHPHS
 HHPPGHSHGHHPhGHHPShSHGHPPGHHPGHHPGHHPGHHPGHHPGHHPGHDFLDYGPCDPPSns
 QELKGQYHRGYPPHGHSRKRGPgKGLFPFHhQIGYVYRLPPLNIgeVLTlPEANfPSfSLPNCnRSLQ
 PEIQPFpQTASRScPGKfEseFPQISKffGYTPPK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_053176

ORF Size: 1578 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_053176.2](#)

RefSeq Size: 1758 bp

RefSeq ORF: 1611 bp

Locus ID: 94175

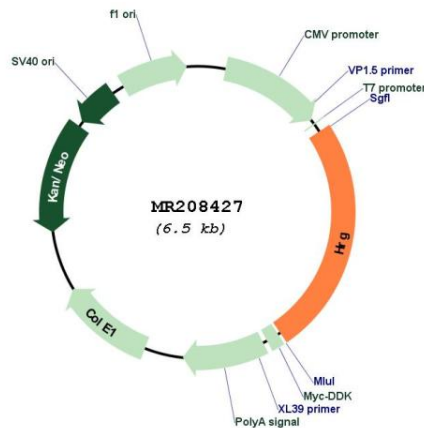
UniProt ID: [Q9ESB3](#)

Cytogenetics: 16 13.79 cM

MW: 59.2 kDa

Gene Summary: Plasma glycoprotein that binds a number of ligands such as heme, heparin, heparan sulfate, thrombospondin, plasminogen, and divalent metal ions. Binds heparin and heparin/glycosaminoglycans in a zinc-dependent manner. Binds heparan sulfate on the surface of liver, lung, kidney and heart endothelial cells. Binds to N-sulfated polysaccharide chains on the surface of liver endothelial cells. Inhibits rosette formation. Acts as an adapter protein and is implicated in regulating many processes such as immune complex and pathogen clearance, cell chemotaxis, cell adhesion, angiogenesis, coagulation and fibrinolysis. Mediates clearance of necrotic cells through enhancing the phagocytosis of necrotic cells in a heparan sulfate-dependent pathway. This process can be regulated by the presence of certain HRG ligands such as heparin and zinc ions. Binds to IgG subclasses of immunoglobins containing kappa and lambda light chains with different affinities regulating their clearance and inhibiting the formation of insoluble immune complexes. Tethers plasminogen to the cell surface. Binds T-cells and alters the cell morphology. Acts as a regulator of the vascular endothelial growth factor (VEGF) signaling pathway; inhibits endothelial cell motility by reducing VEGF-induced complex formation between PXN/paxillin and ILK/integrin-linked protein kinase and by promoting inhibition of VEGF-induced tyrosine phosphorylation of focal adhesion kinases and alpha-actinins in endothelial cells. Also plays a role in the regulation of tumor angiogenesis and tumor immune surveillance. Normalizes tumor vessels and promotes antitumor immunity by polarizing tumor-associated macrophages, leading to decreased tumor growth and metastasis (By similarity). Modulates angiogenesis by blocking the CD6-mediated antiangiogenic effect of thrombospondins, THBS1 and THBS2. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR208427