

Product datasheet for **MG208427**

Hrg (NM_053176) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hrg (NM_053176) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Hrg
Synonyms:	A1265597; AW413091; D16jh2; D18020; Hprg; Hrgp
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG208427 representing NM_053176
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAAGGTGCTCACCACAGCATTGCTTCTAGTCACCCTGCAGTGTCCCATGCCCTGAGTCCCACCAACT
 GTGATGCTTCTGAGCCTCTGGCTGAGAAAGTTCTAGACCTGATCAATAAAGGGCGGAGGAGTGGCTATGT
 TTTGAGCTGCTGCGGGTCTCTGACGCCCACTTGACAGAGCGGGAACGGCCACAGTCTACTACTTAGT
 TTAGATGTGATAGAGTCTGACTGTTGGGTCTTTCCACAAAAGCCAGGATGACTGTCTTCCATCGAGGT
 GGCAATCTGAAATAGTGATTGGACAATGTAAGGTAATAGCCACAAGATACTCAAATGAGTCTCAAGATCT
 TAGCGTGAATGGCTATAACTGCACCACAAGTTCTGTCTTTCAGCACTTCGCAATACCAAGGACAGTCTCT
 GACTCTTGGACTTCTTTGAGGATTCGAGCTCTACAGAAAGCAAGCCCGTAAAGCCCTGGACAAGTACA
 AAACGGATAATGGTGACTTTGCCTTTTCAGAGTGGAAACGGGCAGAACGGGTTATAAGAGCGAGAGGAGG
 GGAAGAACAATTACTATGTGGAATTCATGAGGAAGTCCATGAGGAAGTCCACACAGCATTTCGCCAGGTCCCCT
 CTGGTCTTTGGATTCTGCAGAGCACTTTTGTCTACAGTATAGAAACCTCTGACTTGGAAACCCAGATT
 CCATTGATATAAACTGCGAAGTCTTCAACATTGAGGATCATAAAGACACAAAGTGACATGAAACCCATTG
 GGGCCATGAGCGTCTCTTTGTGACAAACATCTGTGTAAGCTCAGTGGATCCAGGGATCATCATCATAACC
 CATAAGACAGATAAACTTGGATGCCACCTCCACCAGAAGGAAAAGATAACTCAGACAGACCACGCCCTTC
 AAGAAGGAGCCCTCCACAACCTGCCCTTGCTATCCCCCTCATTCTGGTGCCACAGAACCATAGACC
 CTCTTATAATCACAGTTGTAATGAGCATCCTTGTGATGGACATCGTCCCATGGACACCACCCACAGT
 CACCATCCCCCGGTACCATTCCCATGGTCACCATCCCACGGTCACCATCCCACAGTCCCATGGTCCCA
 ACGGTACCATCCCCCGGTACCATCCCATGGTCACCACCCACGGTCACCATCCCACAGTCCCATGGTCCCA
 TCCCCACGGTCACCATCCTCATGGACATGACTTCTTGGACTATGGACCTTGTGACCCGCCCTCCAATAGT
 CAAGAACTCAAAGGTGAGTATCATCGGGCTATGGTCCACCACATGGACACTCAAGAAAAAGAGGTCCAG
 GCAAAGGACTCTTTCCTTCCACCACCAACAAATTGGATATGTCTACCGACTCCCTCCACTGAATATAGG
 TGAAGTCTCACTCTTCTGAAGCAATTTCCCAGCTTCTCTTTGCCAAATTGCAACAGATCCCTACAA
 CCAGAGATTAGCCCTCCCTCAGACAGCCTCCAGGTGATGTCCAGGAAATTTGAGAGTGAATTTCCAC
 AAATTTCAAGTTTTTTGGATATACACCTCCAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG208427 representing NM_053176
 Red=Cloning site Green=Tags(s)

MKVLTTALLLVTLQCSHALSPTNCDASEPLAEKVLDLINKGRRSGYVFELLRVSDAHLDRAGTATVYYLA
 LDVIESDCWVLSKAQDDCLPSRWQSEIVIGQCKVIATRYSNESQDLVNGYNTTSSVSSALRNTKDSP
 VLLDFEFDESELYRQARKALDKYKTDNGDFASFRVERAERVIRARGGERTNYYVEFSMRNCSTQHFPRSP
 LVFGFCRALLSYSIETSDLETPDSIDINCEVFNIEDHKDTSMDKPHWGHHERPLCDKHLCKLSGSRDHHHT
 HKTDKLGCPPEEGKDNSDRPRLQEGALPQLPPGYPPHSGANRTHRPSYNSHCNEHPCHGHRPHGHHPHS
 HHPGHHSHGHHPHGHHPHSHSHGHHPPGHHPHGHHPHGHHPHGHHPHGHHPHGHHPHGHHPHGHHDFLDYGP
 CDPPSNS
 QELKGYHRGYGPPHGSRKRGPGLFPFHQQIGYVYRLPPLNIGEVLTLPANFPSPSLPNCNRSLO
 PEIQPFPTASRSCPGKFESEFPQISKFFGYTPPK

TRTRPLE - GFP Tag - V

Restriction Sites:

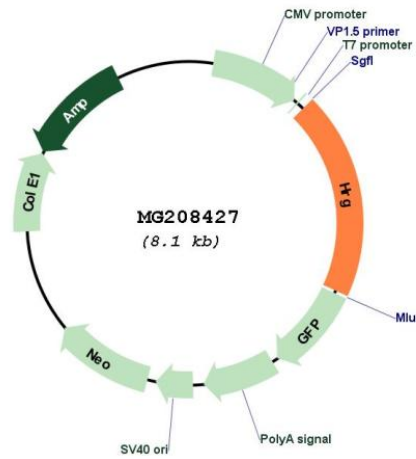
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:	NM_053176
ORF Size:	1575 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_053176.1 , NP_444406.1
RefSeq Size:	1709 bp
RefSeq ORF:	1611 bp
Locus ID:	94175
UniProt ID:	Q9ESB3
Cytogenetics:	16 13.79 cM

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]