

Product datasheet for **MG207695**

Htra1 (NM_019564) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Htra1 (NM_019564) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Htra1
Synonyms:	AI429470; HTRA; L56; Prss11; RSPP11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG207695 representing NM_019564
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCAGTCCCTGCGTACCACGCTCCTGTCTTTGCTACTGTGCTGCTAGCGGCTCCTTCCTTGCGGTTGC
 CGTCGGGGACCGCCGCTCGGCCCCAGCTGCCACCGTCTGTCCCAGCACTGCGATCCCACCCGCTGCGC
 CCCGCCGCCACGGACTGCGAGGGTGGCCGCGTCCGCGACGCGTCCGGCTGCTGCGAGGTGTGCGGCGCG
 CTCGAGGGTGCAGCGTGCAGGCTGCAGGAGGGTCCCTGCGGCGAGGGGCTGCAATGCGTAGTGCCCTTCG
 GGGTGCCGGCCTCGGCCACAGTACGACGGCGCGCACAGGCCGGCCTGTGCGTGTGTGCCAGCAGCGAGCC
 GGTGTGTGGTAGCGACGCCAAGACCTACACCACTGTGCCAGCTGCGCGCCGACCGCCGCTCCGAG
 AAGCTTCGCCAGCCGGTTCATCGTCTGCAGCGCGGCCCTGCGGCCAAGGGCAGGAAGATCCCAACA
 GTTTGCGTCATAAGTACAACCTTTATTGCTGATGTGGTGGAGAAGATCGCCCCGGTGTGGTTCACATTGA
 ACTATATCGCAAGCTTCCTTTCTCGAAGAGGGAGGTGCCAGTGGCCAGTGGGTGAGGATTCATCGTATCG
 GAGGATGGACTGATTGTGACAAATGCTCAGTGGTCCACCAACAAAACCGGGTCAAGGTTGAGCTGAAGA
 ATGGAGCTACCTATGAAGCCAAAATCAAGGATGTGGATGAAAAGGCGGACATTGCGCTTATCAAGATTGA
 CCACCAGGAAAGCTGCCAGTCTGCTGCTCGGCCGCTCCTCAGAGCTGAGACCTGGAGAATTTGTAGTT
 GCCATTGGAAGCCCTTTTCTCTTCAAACACAGTCAACACTGGGATCGTCAGCACCACCCAGCGAGGGC
 GCAAAGAGCTGGGACTTCGGAATCCGATATGGACTACATTGAGCAGACGCTATCATCAATTATGGAAA
 TTCCGGAGGCCGTTAGTAAACCTGGATGGCGAGGTGATTGGGATTAACACCTTGAAGGTGACGGCGGGC
 ATCTCCTTCGCAATTCATCCGATAAGATAAAAAAGTTCTTGACACAGTCCCACGATCGACAGGCCAAAG
 GGAAAGCTGTACCAAGAAGAAGTATATTGGGATCCGAATGATGTCGCTCACATCTAGCAAGCCAAAGA
 GCTGAAGGACCGTACCGAGACTTCCCGGATGTGCTCTCTGGGGCATATATCATTGAAGTCAATTCCTGAC
 ACCCCGGCAGAAGCCGGAGGGCTCAAGGAAAATGACGTATCATCAGCATCAACGACAGTCTGTGGTCA
 CTGCCAATGACGTGAGCGATGTATCAAAAAGGAGAACACCCTGAACATGGTTGTCCGAGGGGCAATGA
 AGACATTGTGATTACCGTATTCTGAAGAAATCGACCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG207695 representing NM_019564
 Red=Cloning site Green=Tags(s)

MQSLRRTLLSLLLLLAAAPSLALPSGTGRSAPAATVCPHECDPTRCAPPTDCEGGRVRDAGCCEVCGA
 LEGAACGLQEGPCGELQCVVPGVVPASATVRRRAQAGLCVCASSEPVCGSDAKTYTNLCQLRAASRRSE
 KLRQPPVIVLQRGACGQGEDPNLSLRHKYNFIADVVEKIAPAVVHIELYRKLPSKREVPVAVSGGFIVS
 EDGLIVTNAHVVTNKNRVKVELKNGATYEAKIKDVDEKADIALIKIDHQGKLPVLLLGRSSELRPGEFVV
 AIGSPFSLQNTVTTGIVSTTQRGGKELGLRNSDMYIQTDAIINYGNSSGGLVNLGDGEVIGINTLKVTAG
 ISFAIPSPDKIKKFLTQSHDRQAKGAVTKKYYIGIRMSLTSSKAKELKDRHRDFPDVLSGAYIIIEVIPD
 TPAEAGGLKENDVIISINGQSVVTANDVSDVIKKENTLNMVRRGNEDIVITVIPEEIDP

SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

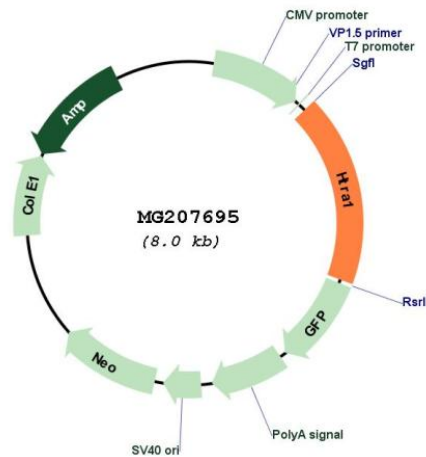
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_019564

ORF Size: 1440 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_019564.1](#), [NP_062510.1](#)

RefSeq Size: 2010 bp

RefSeq ORF: 1443 bp

Locus ID: 56213

UniProt ID: [Q9R118](#)

Cytogenetics: 7 F3

Gene Summary: Serine protease with a variety of targets, including extracellular matrix proteins such as fibronectin. HTRA1-generated fibronectin fragments further induce synovial cells to up-regulate MMP1 and MMP3 production. May also degrade proteoglycans, such as aggrecan, decorin and fibromodulin. Through cleavage of proteoglycans, may release soluble FGF-glycosaminoglycan complexes that promote the range and intensity of FGF signals in the extracellular space. Regulates the availability of insulin-like growth factors (IGFs) by cleaving IGF-binding proteins. Inhibits signaling mediated by TGF-beta family members. This activity requires the integrity of the catalytic site, but it is unclear whether it leads to the proteolytic degradation of TGF-beta proteins themselves (PubMed:18551132) or not (PubMed:14973287). By acting on TGF-beta signaling, may regulate many physiological processes, including retinal angiogenesis and neuronal survival and maturation during development. Intracellularly, degrades TSC2, leading to the activation of TSC2 downstream targets.[UniProtKB/Swiss-Prot Function]