

Product datasheet for MC201136

Serpinb1a (NM_025429) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Serpinb1a (NM_025429) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Serpinb1a
Synonyms:	1190005M04Rik; AI325983; EI; EIA; ELANH2; LEI; M/NEI; MNEI; PI2
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>BC011140 sequence for NM_025429

GAGCCAGACCTGCTAAGCAAGAGACTTCACCATGGAGCAGCTGAGTTCAGCCAACACACTCTTCGCCTTG
 GAGCTGTTCCAAACCCTGAATGAAAGCAGCCCCACAGGAAACATCTTCTCTCCTTCAGCATTTCTT
 CTGCCTTGGCCATGGTCATTCTGGGGGCCAAAGGCAGCACTGCAGCTCAGCTTTCTAAGACTTTTCATTT
 TGA CTCTGTTGAGGACATCCATTCACGCTTCCAAAGCCTGAATGCTGAAGTGAGCAAACGTGGAGCATCT
 CACACTCTGAACTTGCTAACAGACTGTATGGAGAGAAAACCTACAACCTCCTTCTGAATACTTGGCTT
 CAACCCAGAAAATGTATGGTGCTGACTTGGCCCTGTGGATTTTCTGCATGCCTCCGAGGATGCAAGGAA
 GGAGATAAACCAGTGGGTCAAAGGTCAAACAGAAGGGAAAATCCCAGAACTGTTGTCTGTGGGTGTGGTG
 GACAGTATGACCAAACTTGTGCTGGTGAATGCCATCTACTTTAAGGGAATGTGGGAGGAGAAATTCATGA
 CAGAGGACACAACGGATGCTCCATTCGACTGAGTAAGAAAGACACAAAAACAGTGAAGATGATGTATCA
 AAAGAAAAATTTCCATTTGGTTACATTTCCGACCTGAAGTGCAAGGTGCTGGAGATGCCTTACCAGGGT
 GGAGAACTTAGCATGGTCATTCTGCTGCCTAAAGACATTGAGGACGAGTCCACGGGTCTTAAGAAGATTG
 AAAAGCAAATAACTTTGGAAAACTGCTTGAATGGACCAAACGTGAGAACTTGAATTTCATTGATGTCCA
 CGTCAAACCTGCCCGGTTCAAGATAGAAGAGAGCTATACCCTCAACTCTAACCTGGGCCCGCTGGGAGTG
 CAGGATCTCTTTAGCAGTAGCAAGGCTGATCTCTCTGGCATGTCAGGATCCAGAGATCTTTTCATATCAA
 AAATTGTCCACAAGTCCTTTGTGGAAGTGAATGAGGAAGGAACAGAGGCAGCCGCTGCTACAGGAGGCAT
 TGCTACATTCTGTATGTTGTTGCCTGAGGAAGAATTCACAGTGGACCATCCGTTTCATTTCTTCATTCCG
 CACAATCCCACATCTAATGTGCTCTTCTTGGCAGGGTTTGTTCCTCATAGAAGAAGGAGACTTTACAGA
 TACAAGGCAGAGCTTAGAGTTTCATTCCCTGAGATTTTAATAGTGATTATTTTCATTTGTACTTGACAAT
 AAAAACTCTAACCAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites:	RsrII-NotI
ACCN:	NM_025429
Insert Size:	1140 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<u>BC011140</u> , <u>AAH11140</u>
RefSeq Size:	1294 bp
RefSeq ORF:	1140 bp
Locus ID:	66222
UniProt ID:	<u>Q9D154</u>
Cytogenetics:	13 13.75 cM
Gene Summary:	Neutrophil serine protease inhibitor that plays an essential role in the regulation of the innate immune response, inflammation and cellular homeostasis (PubMed:17664292, PubMed:21683252, PubMed:21248149, PubMed:30692621). Acts primarily to protect the cell from proteases released in the cytoplasm during stress or infection (PubMed:17664292). These proteases are important in killing microbes but when released from granules, these potent enzymes also destroy host proteins and contribute to mortality. Regulates the activity of the neutrophil proteases elastase, cathepsin G, proteinase-3, chymase, chymotrypsin, and kallikrein-3. Acts also as a potent intracellular inhibitor of granzyme H (PubMed:12189154). During inflammation, limits the activity of inflammatory caspases CASP1 and CASP4 by suppressing their caspase-recruitment domain (CARD) oligomerization and enzymatic activation (PubMed:30692621). In addition, promotes the proliferation of beta-cells when secreted (PubMed:26701651).[UniProtKB/Swiss-Prot Function]