

Product datasheet for **TR517185**

Serpina1a Mouse shRNA Plasmid (Locus ID 66222)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Serpina1a Mouse shRNA Plasmid (Locus ID 66222)
Locus ID:	66222
Synonyms:	1190005M04Rik; AI325983; EI; EIA; ELANH2; LEI; M/NEI; MNEI; PI2
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Serpina1a - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 66222). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC011140 , BC104333 , NM_025429 , NM_025429.1 , NM_025429.2
UniProt ID:	Q9D154
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]
shRNA Design:	These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com . If you need a special design or shRNA sequence, please utilize our custom shRNA service .


[View online »](#)

**Performance
Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).