

## Product datasheet for **TG309541**

### alpha 1 Antitrypsin (SERPINA1) Human shRNA Plasmid Kit (Locus ID 5265)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	alpha 1 Antitrypsin (SERPINA1) Human shRNA Plasmid Kit (Locus ID 5265)
Locus ID:	5265
Synonyms:	A1A; A1AT; AAT; alpha1AT; nNIF; PI; PI1; PRO2275
Vector:	pGFP-V-RS (TR30007)
E. coli Selection:	Kanamycin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	SERPINA1 - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 5265). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.
RefSeq:	<u><a href="#">NM_000295</a></u> , <u><a href="#">NM_001002235</a></u> , <u><a href="#">NM_001002236</a></u> , <u><a href="#">NM_001127700</a></u> , <u><a href="#">NM_001127701</a></u> , <u><a href="#">NM_001127702</a></u> , <u><a href="#">NM_001127703</a></u> , <u><a href="#">NM_001127704</a></u> , <u><a href="#">NM_001127705</a></u> , <u><a href="#">NM_001127706</a></u> , <u><a href="#">NM_001127707</a></u> , <u><a href="#">NM_000295.1</a></u> , <u><a href="#">NM_000295.2</a></u> , <u><a href="#">NM_000295.3</a></u> , <u><a href="#">NM_000295.4</a></u> , <u><a href="#">NM_001002235.1</a></u> , <u><a href="#">NM_001002235.2</a></u> , <u><a href="#">NM_001002236.1</a></u> , <u><a href="#">NM_001002236.2</a></u> , <u><a href="#">NM_001127701.1</a></u> , <u><a href="#">NM_001127702.1</a></u> , <u><a href="#">NM_001127703.1</a></u> , <u><a href="#">NM_001127704.1</a></u> , <u><a href="#">NM_001127705.1</a></u> , <u><a href="#">NM_001127706.1</a></u> , <u><a href="#">NM_001127707.1</a></u> , <u><a href="#">NM_001127700.1</a></u> , <u><a href="#">BC011991</a></u> , <u><a href="#">BC011991.1</a></u> , <u><a href="#">BC015642</a></u> , <u><a href="#">BC015642.2</a></u> , <u><a href="#">BC070163</a></u> , <u><a href="#">BM844817</a></u> , <u><a href="#">BM923322</a></u> , <u><a href="#">NM_001127700.2</a></u> , <u><a href="#">NM_001127707.2</a></u> , <u><a href="#">NM_001127701.2</a></u> , <u><a href="#">NM_001127702.2</a></u> , <u><a href="#">NM_001127705.2</a></u> , <u><a href="#">NM_001127703.2</a></u> , <u><a href="#">NM_001127704.2</a></u> , <u><a href="#">NM_001127706.2</a></u> , <u><a href="#">NM_001002235.3</a></u> , <u><a href="#">NM_001002236.3</a></u>
UniProt ID:	<u><a href="#">P01009</a></u>
Summary:	The protein encoded by this gene is a serine protease inhibitor belonging to the serpin superfamily whose targets include elastase, plasmin, thrombin, trypsin, chymotrypsin, and plasminogen activator. This protein is produced in the liver, the bone marrow, by lymphocytic and monocytic cells in lymphoid tissue, and by the Paneth cells of the gut. Defects in this gene are associated with chronic obstructive pulmonary disease, emphysema, and chronic liver disease. Several transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Aug 2020]



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**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](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).

**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](mailto: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).