SerpinA2 (K-12): sc-109867



The Power to Question

BACKGROUND

The serine proteinase inhibitors (serpins) compose a superfamily of proteins with a diverse set of functions, including the control of blood coagulation, complement activation, programmed cell death and development. Serpins are secreted glycoproteins that contain a stretch of peptide that mimics a true substrate for a corresponding serine protease. SerpinA2 (serpin peptidase inhibitor, clade A (α -1 antiproteinase, antitrypsin), member 2), also known as putative α -1-antitrypsin-related protein, PIL, ATR, ARGS or psiATR, is a 420 amino acid protein that likely functions as a serine protease inhibitor. A member of the serpin family, SerpinA2 is encoded by a gene that maps to human chromosome 14q32.12.

REFERENCES

- 1. Kelsey, G.D., et al. 1988. The human α -1-antitrypsin-related sequence gene: isolation and investigation of its expression. Ann. Hum. Genet. 52: 151-160.
- 2. Bao, J.J., et al. 1988. Molecular structure and sequence homology of a gene related to α -1-antitrypsin in the human genome. Genomics 2: 165-173.
- Kalsheker, N.A. and Watkins, G.L. 1988. Heterozygosity and localisation of normal allelic fragments for an α-1-antitrypsin homologous sequence. Hum. Genet. 80: 108-109.
- Sefton, L., et al. 1990. A physical map of the human PI and AACT genes. Genomics 7: 382-388.
- Billingsley, G.D., et al. 1993. Physical mapping of four serpin genes: α-1antitrypsin, α-1-antichymotrypsin, corticosteroid-binding globulin, and protein C inhibitor, within a 280-kb region on chromosome I4q32.1. Am. J. Hum. Genet. 52: 343-353.
- Seixas, S., et al. 2007. Sequence diversity at the proximal 14q32.1 Serpin subcluster: evidence for natural selection favoring the pseudogenization of SerpinA2. Mol. Biol. Evol. 24: 587-598.
- 7. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 107410. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: SERPINA2 (human) mapping to 14q32.12.

SOURCE

SerpinA2 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SerpinA2 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109867 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SerpinA2 (K-12) is recommended for detection of SerpinA2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other Serpin family members.

Suitable for use as control antibody for SerpinA2 siRNA (h): sc-92094, SerpinA2 shRNA Plasmid (h): sc-92094-SH and SerpinA2 shRNA (h) Lentiviral Particles: sc-92094-V.

Molecular Weight of SerpinA2: 48 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com