

# SerpinA2 (G-12): sc-109866

## 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 ( $\alpha$ -1 antiproteinase, antitrypsin), member 2), also known as putative  $\alpha$ -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

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2. Bao, J.J., et al. 1988. Molecular structure and sequence homology of a gene related to  $\alpha$ -1-antitrypsin in the human genome. *Genomics* 2: 165-173.
3. Kalsheker, N.A. and Watkins, G.L. 1988. Heterozygosity and localisation of normal allelic fragments for an  $\alpha$ -1-antitrypsin homologous sequence. *Hum. Genet.* 80: 108-109.
4. Sefton, L., et al. 1990. A physical map of the human PI and AACT genes. *Genomics* 7: 382-388.
5. Billingsley, G.D., et al. 1993. Physical mapping of four serpin genes:  $\alpha$ -1-antitrypsin,  $\alpha$ -1-antichymotrypsin, corticosteroid-binding globulin, and protein C inhibitor, within a 280-kb region on chromosome 14q32.1. *Am. J. Hum. Genet.* 52: 343-353.
6. 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<sup>™</sup>. 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 (G-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  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109866 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SerpinA2 (G-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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> 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](http://www.scbt.com) or our catalog for detailed protocols and support products.