

# SerpinB12 (H3-1B): sc-32234

## 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. SerpinB12 appears to be an inhibitor of trypsin-like serine proteinases, including mast cell tryptases.

## REFERENCES

1. Askew, Y.S., et al. 2001. SerpinB12 is a novel member of the human ov-serpin family that is widely expressed and inhibits trypsin-like serine proteinases. *J. Biol. Chem.* 276: 49320-49330.
2. Gettins, P.G. 2002. Serpin structure, mechanism, and function. *Chem. Rev.* 102: 4751-4804.
3. Carrell, R.W. and Huntington, J.A. 2003. How serpins change their fold for better and for worse. *Biochem. Soc. Symp.* 70: 163-178.
4. van Gent, D., et al. 2003. Serpins: structure, function and molecular evolution. *Int. J. Biochem. Cell Biol.* 35: 1536-1547.
5. Silverman, G.A., et al. 2004. Human clade B serpins (ov-serpins) belong to a cohort of evolutionarily dispersed intracellular proteinase inhibitor clades that protect cells from promiscuous proteolysis. *Cell. Mol. Life Sci.* 61: 301-325.

## CHROMOSOMAL LOCATION

Genetic locus: SERPINB12 (human) mapping to 18q21.33.

## SOURCE

SerpinB12 (H3-1B) is a mouse monoclonal antibody raised against whole Serpin protein.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SerpinB12 (H3-1B) is available conjugated to agarose (sc-32234 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-32234 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32234 PE), fluorescein (sc-32234 FITC), Alexa Fluor<sup>®</sup> 488 (sc-32234 AF488), Alexa Fluor<sup>®</sup> 546 (sc-32234 AF546), Alexa Fluor<sup>®</sup> 594 (sc-32234 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-32234 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-32234 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-32234 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA

## 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.

## APPLICATIONS

SerpinB12 (H3-1B) is recommended for detection of SerpinB12 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for SerpinB12 siRNA (h): sc-76477, SerpinB12 shRNA Plasmid (h): sc-76477-SH and SerpinB12 shRNA (h) Lentiviral Particles: sc-76477-V.

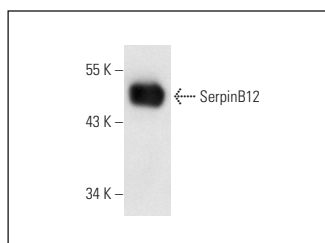
Molecular Weight of SerpinB12: 46 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or JAR cell lysate: sc-2276.

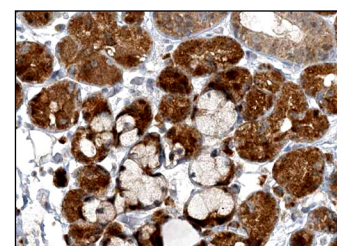
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



SerpinB12 (H3-1B): sc-32234. Western blot analysis of human SerpinB12.



SerpinB12 (H3-1B): sc-32234. Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic staining of glandular cells at high magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

## SELECT PRODUCT CITATIONS

1. Niehaus, J.Z., et al. 2015. Human SERPINB12 is an abundant intracellular serpin expressed in most surface and glandular epithelia. *J. Histochem. Cytochem.* 63: 854-865.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.