

# SerpinB8 (PI-8): sc-101371

## BACKGROUND

The serine proteinase inhibitors (serpins) comprise a superfamily of proteins with a diverse set of functions, including the control of blood coagulation, complement activation, programmed cell death and tissue development. SerpinB8 (serpin peptidase inhibitor, clade B (ovalbumin), member 8), also known as P18 or CAP2, is a 374 amino acid protein that localizes to the cytoplasm and belongs to the serine proteinase inhibitor family. Expressed at high levels in lung, liver, heart and skeletal muscle, SerpinB8, which exists as multiple alternatively spliced isoforms, is thought to play a role in platelet aggregation and platelet-regulated pathophysiological responses. The gene encoding SerpinB8 maps to a cluster of Serpin genes on human chromosome 18, which houses over 300 protein-coding genes and contains nearly 76 million bases.

## REFERENCES

- Huber, R. and Carrell, R.W. 1989. Implications of the three-dimensional structure of  $\alpha$  1-antitrypsin for structure and function of serpins. *Biochemistry* 28: 8951-8966.
- Sprecher, C.A., et al. 1995. Molecular cloning, expression, and partial characterization of two novel members of the ovalbumin family of serine proteinase inhibitors. *J. Biol. Chem.* 270: 29854-29861.
- Bartuski, A.J., et al. 1997. Cytoplasmic antiproteinase 2 (PI8) and bomapin (PI10) map to the serpin cluster at 18q21.3. *Genomics* 43: 321-328.

## CHROMOSOMAL LOCATION

Genetic locus: SERPINB8 (human) mapping to 18q21.1.

## SOURCE

SerpinB8 (PI-8) is a mouse monoclonal antibody raised against SerpinB8 of human origin.

## PRODUCT

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

SerpinB8 (PI-8) is available conjugated to agarose (sc-101371 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-101371 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101371 PE), fluorescein (sc-101371 FITC), Alexa Fluor<sup>®</sup> 488 (sc-101371 AF488), Alexa Fluor<sup>®</sup> 546 (sc-101371 AF546), Alexa Fluor<sup>®</sup> 594 (sc-101371 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-101371 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-101371 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-101371 AF790), 200  $\mu$ g/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

SerpinB8 (PI-8) is recommended for detection of SerpinB8 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SerpinB8 siRNA (h): sc-76478, SerpinB8 shRNA Plasmid (h): sc-76478-SH and SerpinB8 shRNA (h) Lentiviral Particles: sc-76478-V.

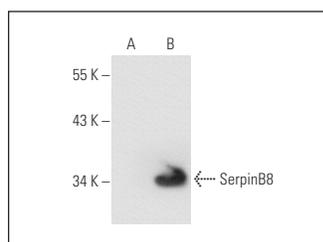
Molecular Weight of SerpinB8: 42 kDa.

Positive Controls: SerpinB8 (h4): 293T Lysate: sc-177912, human spleen extract: sc-363779 or human placenta extract: sc-363772.

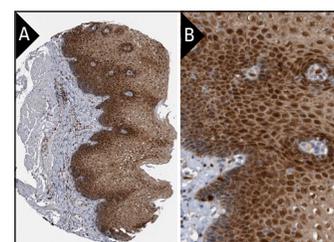
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



SerpinB8 (PI-8): sc-101371. Western blot analysis of SerpinB8 expression in non-transfected: sc-117752 (A) and human SerpinB8 transfected: sc-158952 (B) 293T whole cell lysates.



SerpinB8 (PI-8): sc-101371. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus showing nuclear and cytoplasmic staining of squamous epithelial cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

## SELECT PRODUCT CITATIONS

- Pigors, M., et al. 2016. Loss-of-function mutations in SerpinB8 linked to exfoliative ichthyosis with impaired mechanical stability of intercellular adhesions. *Am. J. Hum. Genet.* 99: 430-436.

## PROTOCOLS

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