

SerpinB1 (H-40): sc-66957

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. The monocyte/neutrophil elastase inhibitor gene, SERPINB1, belongs to the Ov-serpin family (ovalbumin-related serpins). Human SerpinB1, also designated monocyte/neutrophil elastase inhibitor (M/NEI) or leukocyte elastase inhibitor (LEI), is a cytoplasmic protein which acts as a fast-acting stoichiometric proteinase inhibitor that regulates the activity of neutrophil elastase (NE), cathepsin-G and proteinase-3. There are four homologous genes in mouse designated SerpinB1a, SerpinB1b, SerpinB1c and the pseudogene, Serpinb1-ps1. The three protein-coding genes share significant sequence identity, however SerpinB1a (also designated EIA) has been characterized as the functional ortholog of human SerpinB1.

REFERENCES

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- Benarafa, C., et al. 2002. Characterization of four murine homologs of the human Ov-serpin monocyte neutrophil elastase inhibitor M/NEI (SerpinB1). *J. Biol. Chem.* 277: 42028-42033.

CHROMOSOMAL LOCATION

Genetic locus: SERPINB1 (human) mapping to 6p25; Serpinb1-ps1 (mouse) mapping to 13 A3.2.

SOURCE

SerpinB1 (H-40) is a rabbit polyclonal antibody raised against amino acids 101-140 mapping within an internal region of SerpinB1 of human origin.

PRODUCT

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

APPLICATIONS

SerpinB1 (H-40) is recommended for detection of SerpinB1 of human origin and SerpinB1a, SerpinB1b and SerpinB1c of mouse and rat 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SerpinB1 siRNA (h): sc-45371, SerpinB1 shRNA Plasmid (h): sc-45371-SH and SerpinB1 shRNA (h) Lentiviral Particles: sc-45371-V.

Molecular Weight of SerpinB1: 42 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.


 MONOS
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Try **SerpinB1 (4D7): sc-293462**, our highly recommended monoclonal alternative to SerpinB1 (H-40).