

vaspin (I-14): sc-79815

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. Vaspin, also known as SERPINA12 (serpin peptidase inhibitor, clade A (α -1 antitrypsin, antitrypsin), member 12) or OL-64, is a 414 amino acid secreted protein that belongs to the serpin family. Expressed in visceral adipose tissue, vaspin functions to modulate Insulin activity within adipose tissue, possibly only in the presence of select proteases. Due to its involvement in Insulin regulation, vaspin may be associated with the pathogenesis of obesity and type 2 diabetes. The gene encoding vaspin maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome.

REFERENCES

- Namciu, S.J., et al. 2004. Sequence organization and matrix attachment regions of the human serine protease inhibitor gene cluster at 14q32.1. *Mamm. Genome* 15: 162-178.
- Hida, K., et al. 2005. Visceral adipose tissue-derived serine protease inhibitor: a unique Insulin-sensitizing adipocytokine in obesity. *Proc. Natl. Acad. Sci. USA* 102: 10610-10615.
- Klötting, N., et al. 2006. Vaspin gene expression in human adipose tissue: association with obesity and type 2 diabetes. *Biochem. Biophys Res. Commun.* 339: 430-436.
- Youn, B.S., et al. 2008. Serum vaspin concentrations in human obesity and type 2 diabetes. *Diabetes* 57: 372-377.
- Tan, B.K., et al. 2008. Metformin decreases the adipokine vaspin in overweight women with polycystic ovary syndrome concomitant with improvement in Insulin sensitivity and a decrease in Insulin resistance. *Diabetes* 57: 1501-1507.

CHROMOSOMAL LOCATION

Genetic locus: SERPINA12 (human) mapping to 14q32.13; Serpina12 (mouse) mapping to 12 E.

SOURCE

vaspin (I-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of vaspin of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-79815 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

vaspin (I-14) is recommended for detection of vaspin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

vaspin (I-14) is also recommended for detection of vaspin in additional species, including equine and canine.

Suitable for use as control antibody for vaspin siRNA (h): sc-76889, vaspin siRNA (m): sc-76890, vaspin shRNA Plasmid (h): sc-76889-SH, vaspin shRNA Plasmid (m): sc-76890-SH, vaspin shRNA (h) Lentiviral Particles: sc-76889-V and vaspin shRNA (m) Lentiviral Particles: sc-76890-V.

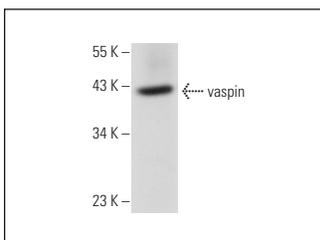
Molecular Weight of vaspin: 47 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or mouse skin extract: sc-364251.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



vaspin (I-14): sc-79815. Western blot analysis of vaspin expression in mouse skin tissue extract.

RESEARCH USE

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

MONOS
Satisfaction
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Try **vaspin (1C4): sc-81666**, our highly recommended monoclonal alternative to vaspin (I-14).