

HtrA3 (S-13): sc-79532

BACKGROUND

HtrA3, also known as PRSP (pregnancy-related serine protease), is a 453 amino acid secreted protein that contains one PDZ domain, one Kazal-like domain and one IGFBP N-terminal domain. Widely expressed with particularly high expression in ovary, heart, placenta and bladder, HtrA3 functions as a probable serine protease that is thought to play an important role in placental development. HtrA3 is downregulated in ovarian tumors, suggesting an alternative role in tumor suppression. HtrA3 exists as two alternatively spliced isoforms, designated short and long. The gene encoding HtrA3 maps to human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes.

REFERENCES

- Nie, G.Y., Hampton, A., Li, Y., Findlay, J.K. and Salamonsen, L.A. 2003. Identification and cloning of two isoforms of human high-temperature requirement factor A3 (HtrA3), characterization of its genomic structure and comparison of its tissue distribution with HtrA1 and HtrA2. *Biochem. J.* 371: 39-48.
- De Luca, A., De Falco, M., Severino, A., Campioni, M., Santini, D., Baldi, F., Paggi, M.G. and Baldi, A. 2003. Distribution of the serine protease HtrA1 in normal human tissues. *J. Histochem. Cytochem.* 51: 1279-1284.
- Nie, G., Li, Y., Hale, K., Okada, H., Manuelpillai, U., Wallace, E.M. and Salamonsen, L.A. 2006. Serine peptidase HTRA3 is closely associated with human placental development and is elevated in pregnancy serum. *Biol. Reprod.* 74: 366-374.
- Runyon, S.T., Zhang, Y., Appleton, B.A., Sazinsky, S.L., Wu, P., Pan, B., Wiesmann, C., Skelton, N.J. and Sidhu, S.S. 2007. Structural and functional analysis of the PDZ domains of human HtrA1 and HtrA3. *Protein Sci.* 16: 2454-2471.

CHROMOSOMAL LOCATION

Genetic locus: HTRA3 (human) mapping to 4p16.1; Htra3 (mouse) mapping to 5 B3.

SOURCE

HtrA3 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HtrA3 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.

Blocking peptide available for competition studies, sc-79532 P, (100 µg 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

HtrA3 (S-13) is recommended for detection of HtrA3 of mouse, rat and 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HtrA3 (S-13) is also recommended for detection of HtrA3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HtrA3 siRNA (h): sc-75313, HtrA3 siRNA (m): sc-75314, HtrA3 shRNA Plasmid (h): sc-75313-SH, HtrA3 shRNA Plasmid (m): sc-75314-SH, HtrA3 shRNA (h) Lentiviral Particles: sc-75313-V and HtrA3 shRNA (m) Lentiviral Particles: sc-75314-V.

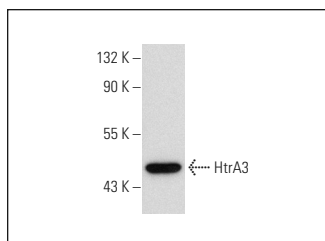
Molecular Weight of HtrA3: 49 kDa.

Positive Controls: JAR cell lysate: sc-2276.

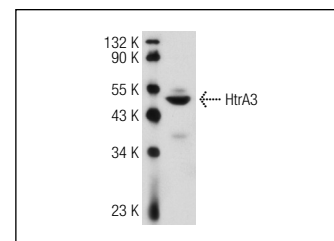
RECOMMENDED SECONDARY REAGENTS

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



HtrA3 (N-12): sc-79531. Western blot analysis of HtrA3 expression in 293T whole cell lysate.



HtrA3 (S-13): sc-79532. Western blot analysis of HtrA3 expression in JAR whole cell lysate.

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.