

HtrA (Z-24): sc-130780

BACKGROUND

The human homolog of the *E. Coli* HtrA gene product HtrA is identified in osteoarthritic cartilage and is repressed in SV40-transformed fibroblast. The gene encoding HtrA is highly conserved among mammalian species and belongs to the serine protease family. The HtrA protein contains an IGF-binding domain and exhibits endoproteolytic activity, including autocatalytic cleavage. HtrA is a secreted protein that is expressed in heterologous systems. HtrA plays a role in the degradation of denatured proteins and cell growth regulation. Human HtrA2 (also designated Omi) is a novel member of the HtrA serine protease family and is highly homologous to HtrA (also known as L56 and HtrA1). HtrA2 is a ubiquitously expressed nuclear protease that is capable of autoproteolysis. The HtrA2 protein exists as two polypeptides and as an alternatively spliced form called D-Omi, which is predominantly expressed in the kidney, colon and thyroid. Due to a modified PDZ domain, D-Omi does not interact with the known partner of HtrA2, the Mxi2 protein. Like HtrA, HtrA2 is involved in the degradation of aberrantly folded proteins during conditions of cellular stress, suggesting that it may possess a chaperone-like role under normal conditions.

REFERENCES

- Zumbrunn, J. and Trueb, B. 1996. Primary structure of a putative serine protease specific for IGF-binding proteins. FEBS Lett. 398: 187-192.
- Hu, S.I., et al. 1998 Human HtrA, an evolutionarily conserved serine protease identified as a differentially expressed gene product in osteoarthritic cartilage. J. Biol. Chem. 273: 34406-34412.

CHROMOSOMAL LOCATION

Genetic locus: HTRA1 (human) mapping to 10q26.13.

SOURCE

HtrA (Z-24) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of HtrA of human origin.

PRODUCT

Each vial contains 100 µg of IgG in PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HtrA (Z-24) is recommended for detection of HtrA 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), 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).

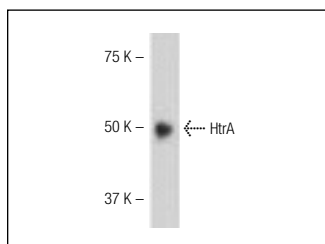
Suitable for use as control antibody for HtrA siRNA (h): sc-43854, HtrA shRNA Plasmid (h): sc-43854-SH and HtrA shRNA (h) Lentiviral Particles: sc-43854-V.

Molecular Weight of HtrA: 50 kDa.

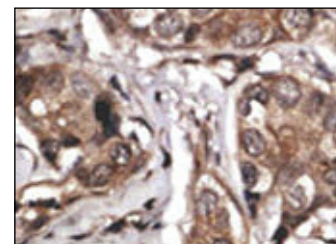
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



HtrA (Z-24): sc-130780. Western blot analysis of HtrA expression in human placenta tissue extract.



HtrA (Z-24): sc-130780. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic localization.

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.



Try **HtrA (B-8): sc-377050**, our highly recommended monoclonal alternative to HtrA (Z-24).