SANTA CRUZ BIOTECHNOLOGY, INC.

HtrA2 (h4): 293T Lysate: sc-158627

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 protein 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), a novel member of the HtrA serine protease family, 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 predominately 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

1. Zumbrunn, J. and Trueb, B. 1996. Primary structure of a putative serine protease specific for IGF-binding proteins. FEBS Lett. 398: 187-192.
2. 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.
3. Gray, C.W., et al. 2000. Characterization of human HtrA2, a novel serine protease involved in the mammalian cellular stress response. Eur. J. Biochem. 267: 5699-5710.
4. Faccio, L., et al. 2000. Tissue-specific splicing of Omi stress-regulated endoprotease leads to an inactive protease with a modified PDZ motif. Genomics 68: 343-347.
5. Savopoulos, J.W., et al. 2000. Expression, purification, and functional analysis of the human serine protease HtrA2. Protein Expr. Purif. 19: 227-234.

CHROMOSOMAL LOCATION

Genetic locus: HTRA2 (human) mapping to 2p13.1.

PRODUCT

HtrA2 (h4): 293T Lysate represents a lysate of human HtrA2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

HtrA2 (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive HtrA2 antibodies. Recommended use: 10-20 µl per lane.

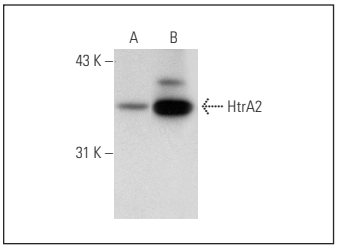
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HtrA2 (1B3): sc-58371 is recommended as a positive control antibody for Western Blot analysis of enhanced human HtrA2 expression in HtrA2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

DATA



HtrA2 (1B3): sc-58371. Western blot analysis of HtrA2 expression in non-transfected: sc-117752 (**A**) and human HtrA2 transfected: sc-158627 (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.