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HtrA3 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1332a

Product Information

Application	WB, IHC-P, E
Primary Accession	P83110
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	48608
Antigen Region	112-144

Additional Information

Gene ID	94031
Other Names	Serine protease HTRA3, 3421-, High-temperature requirement factor A3, Pregnancy-related serine protease, HTRA3, PRSP
Target/Specificity	This HtrA3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 112-144 amino acids from the N-terminal region of human HtrA3.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HtrA3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HTRA3
Synonyms	PRSP
Function	Serine protease that cleaves beta-casein/CSN2 as well as several extracellular matrix (ECM) proteoglycans such as decorin/DCN, biglycan/BGN

	and fibronectin/FN1. Inhibits signaling mediated by TGF- beta family proteins possibly indirectly by degradation of these ECM proteoglycans (By similarity). May act as a tumor suppressor. Negatively regulates, in vitro, trophoblast invasion during placental development and may be involved in the development of the placenta in vivo. May also have a role in ovarian development, granulosa cell differentiation and luteinization (PubMed:21321049, PubMed:22229724).
Cellular Location	Secreted. Note=Secretion increased during decidualization of endometrial stromal cells
Tissue Location	Widely expressed, with highest levels in both adult and fetal heart, ovary, uterus placenta, and bladder. In the endometrium, expressed in epithelial glands and the stroma. Also present in leukocytes. Isoform 1 is predominant in heart and skeletal muscle, whereas isoform 2 is predominant in placenta and kidney

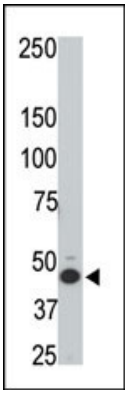
Background

Insulin-like growth factors (IGFs) stimulate the proliferation and differentiation of a vast number of cell types. The action of the growth factors is mediated and controlled by a complex system of components, including several proteases that cleave the IGF-Binding Proteins. HtrA1 is a 480 aa protein that contains an N-terminus homologous to MAC25 (IGFBP7) with a conserved Kazal-type serine protease inhibitor motif, as well as a C-terminal PDZ domain. Semiquantitative RT-PCR and immunoblot analyses showed an approximately 7-fold increase of PRSS11 in osteoarthritis cartilage compared with controls. HTRA2 is released from mitochondria and inhibits the function of XIAP by direct binding in a way similar to SMAC. Moreover, when overexpressed extramitochondrially, HTRA2 induced atypical cell death, which was neither accompanied by a significant increase in caspase activity nor inhibited by caspase inhibitors, including XIAP. A catalytically inactive mutant of HTRA2, however, did not induce cell death. Suzuki et al. (2001) concluded that HTRA2 is a SMAC-like inhibitor of IAP (inhibitor of apoptosis proteins) activity with a serine protease-dependent cell death-inducing activity.

References

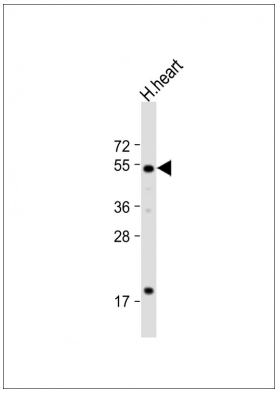
Nie, G.Y., et al., Biochem. J. 371 (Pt 1), 39-48 (2003).

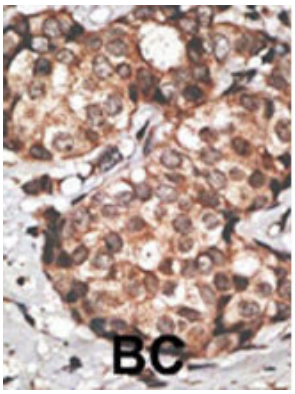
Images



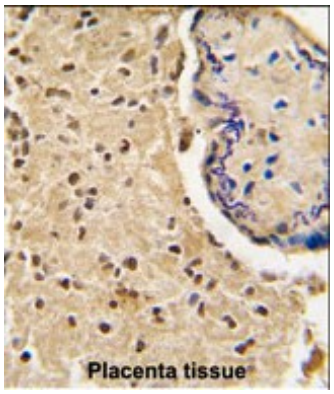
The anti-HtrA3 N-term Pab (Cat. #AP1332a) is used in Western blot to detect HtrA3 in rat testis tissue lysate.

Anti-HtrA3 Antibody (N-term) at 1:1000 dilution + human heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 49 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Formalin-fixed and paraffin-embedded human placenta tissue reacted with HtrA3 antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- Changes in mRNA and protein levels of human HtrA1, HtrA2 and HtrA3 in ovarian cancer.
- Implications of the serine protease HtrA1 in amyloid precursor protein processing.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.