10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

HtrA2 (OMI) Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP1333a

Specification

HtrA2 (OMI) Antibody (N-term) Blocking Peptide - Product Information

Primary Accession O43464

HtrA2 (OMI) Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 27429

Other Names
Serine protease HTRA2, mitochondrial, High temperature requirement protein A2, HtrA2, Omi stress-regulated endoprotease, Serine protease 25, Serine proteinase OMI, HTRA2, OMI, PRSS25

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1333a was selected from the OMI region of human HtrA2 (OMI). A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

HtrA2 (OMI) Antibody (N-term) Blocking Peptide - Protein Information

Name HTRA2

Synonyms OMI, PRSS25

Function
Serine protease that shows proteolytic activity against a non-specific substrate beta-casein. Promotes or induces cell death either by direct binding to and inhibition of BIRC proteins (also called inhibitor of apoptosis proteins, IAPs), leading to an increase in caspase activity, or by a BIRC inhibition-independent, caspase- independent and serine protease activity-dependent mechanism. Cleaves THAP5 and promotes its degradation during apoptosis. Isoform 2 seems to be proteolytically inactive.

Cellular Location
Mitochondrion intermembrane space. Mitochondrion membrane; Single-pass membrane protein

Note=Predominantly present in the intermembrane space. Released into the cytosol following apoptotic stimuli, such as UV treatment, and stimulation of mitochondria with caspase-8 truncated BID/tBID

Tissue Location
[Isoform 1]: Ubiquitously expressed.

HtrA2 (OMI) Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

HtrA2 (OMI) Antibody (N-term) Blocking Peptide - Images

HtrA2 (OMI) Antibody (N-term) Blocking Peptide - 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.

HtrA2 (OMI) Antibody (N-term) Blocking Peptide - References

Gray C.W., et al. Eur. J. Biochem. 267:5699-5710(2000)Verhagen A.M., ey al. J. Biol. Chem. 277:445-454(2002)