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OMI Antibody
Catalog # ASC10178

Specification

OMI Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	O43464
Other Accession	AAB94569, 5870865
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**OMI antibody can be used for detection of OMI by Western blot at 0.5 to 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2 µg/mL. For immunofluorescence start at 20 µg/mL.**

OMI Antibody - Additional Information

Gene ID **27429**

Other Names
OMI Antibody: OMI, PARK13, PRSS25, OMI, Serine protease HTRA2, mitochondrial, High temperature requirement protein A2, HtrA2, HtrA serine peptidase 2

Target/Specificity
HTRA2;

Reconstitution & Storage
OMI antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
OMI Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

OMI Antibody - 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

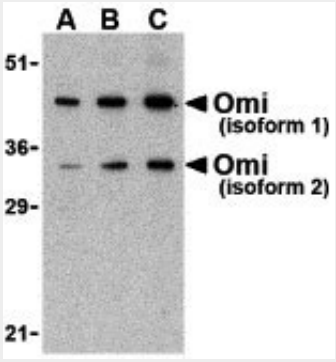
Tissue Location
[Isoform 1]: Ubiquitously expressed.

OMI Antibody - Protocols

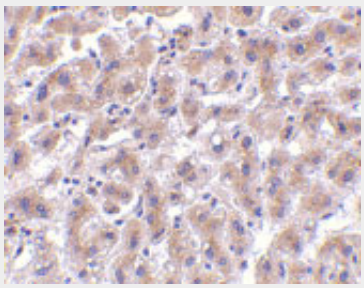
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

OMI Antibody - Images

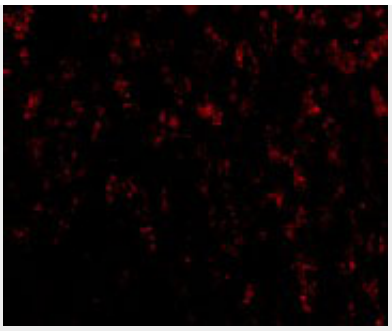


Western blot analysis of OMI in U937 lysate with Omi antibody at (A) 0.5, (B) 1, and (C) 2 µg/mL.



Immunohistochemistry of OMI in human liver tissue with OMI antibody at 2 µg/mL.

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Immunofluorescence of OMI in Human Liver cells with OMI antibody at 20 µg/mL.

OMI Antibody - Background

OMI Antibody: Inhibitor of apoptosis proteins (IAPs) were initially identified in baculoviruses as proteins that inhibit apoptosis of the host cells to allow time for viral replication. Cellular homologues containing at least one baculoviral IAP repeat (BIR) motif essential for their anti-apoptosis activity have been identified in yeasts and higher organisms and often act by binding and inhibiting processed caspases. The activity of these proteins can be modulated by the expression of proteins such as Smac/DIABLO and XAF-1 which displace or prevent the binding of caspases by IAPs. Recently, a mitochondrial serine protease termed Omi/HtrA2 has been found to bind IAPs. Similar to Smac, Omi possesses a conserved IAP-binding motif, but acts to cleave IAPs to irreversibly inactivate IAPs and promote apoptosis.

OMI Antibody - References

Crook NE, Clem RJ, and Miller LK. An apoptosis inhibiting baculovirus gene with a zinc finger like motif. J. Virol. 1993; 67:2168-2174.
Liston P, Fong WG, and Korneluk RG. The inhibitors of apoptosis: there is more to life than Bcl2. Oncogene 2003; 22:8568-80.
Vaux DL and Silke J. Mammalian mitochondrial IAP binding proteins. Biochem. Biophys. Res. Comm. 2003; 304:499-504.
Suzuki Y, Imai Y, Nakayama H, et al. A serine protease, HtrA2, is released from the mitochondria and interacts with XIAP, inducing cell death. Mol. Cell 2001; 8:613-21.