

## Monoclonal Antibody to HtrA2/Omi



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## Monoclonal Antibody to HtrA2/Omi

**Catalog No :** IMG-404A  
**Formulation :** 0.1 mg in 0.2 ml PBS containing 0.05% sodium azide and 0.05% BSA. Sodium azide is highly toxic.  
**Isotype :** Mouse IgG1, Kappa  
**Clone :** 196C429  
**Purification :** Protein G Chromatography  
**Species React :** Human  
**Host :** Mouse

**Application**  
Western blot analysis: 2-3 ug/ml  
IHC (paraffin): please see product citation Lee, et al (2003) for details

**Storage**  
Store at 4°C. For long-term storage, store at -20°C.

**Recommended Positive Control:** Jurkat or HL-60 cell lysate can also be used as a positive control.

### Background

The inhibitor of apoptosis (IAP) family of proteins regulates programmed cell death triggered by various stimuli. All IAPs have at least one baculovirus IAP repeat (BIR) motif that is essential for their anti-apoptotic activity (1-3). Recently, a serine protease has been isolated, which is released from the mitochondria upon induction of apoptosis by apoptotic stimuli. This protein called Omi/HtrA2 is a mitochondrial protein that binds to IAP (4). Like Smac/DIABLO, the mature Omi protein contains a conserved IAP-binding motif (AVPS) at its N terminus. The deregulated expression of Omi in the cytoplasm of mammalian cells induces apoptosis indicating that Omi could participate in the mitochondrial apoptotic pathway.

### Antigen

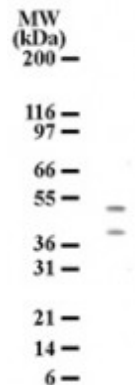
This monoclonal antibody was developed by immunizing mice with a synthetic peptide containing amino acids 335-350 of human Omi/HtrA2.

### Application Notes

This mAb does not cross-react with mouse Omi/HtrA2.

### Genebank Info (Protein)

NP\_713130



Western blot detection of Omi/HtrA2 in HL-60 cell lysate. Two protein bands of approximate molecular weight of 50 and 38 kDa were detected using IMG-404 at 3 µg/ml dilution. The 50 kDa and 38 kDa bands may represent precursor and mature form of Omi.

IHC testing using IMG-404 shows cytoplasmic staining in stomach tumor tissue (A) and very weak staining in normal stomach tissue (B).

### Related Products

- 20101 [Goat Anti-Mouse Ig HRP Conjugate]
- IMG-5019A-1 [Monoclonal Antibody to GAPDH - Loading Control]
- IMG-5019A-2 [Monoclonal Antibody to GAPDH - Loading Control]
- 40162 [Jurkat cell line lysate (T cell leukemia)]
- 40169 [HL60 cell line lysate (promyelocytic cell line)]

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## Reference

1. Miller LK. Trends Cell Biol. 9: 323-328 (1999).
2. Deveraux QL, and Reed JC. Genes Dev. 13: 239-252 (1999).
3. Reed JC and Bischoff JR Cell 102: 545-548 (2000).
4. Hegde R, Srinivasual SM, Zhang J, Wasell R, et al. J. Biol. Chem 277: 432-438 (2002).

## Product Citations

1. **Immunohistochemical analysis of Omi/HtrA2 expression in stomach cancer.** SUG HYUNG LEE, JONG WOO LEE, HONG SUG KIM, SU YOUNG KIM, WON SANG PARK, SANG HO KIM, JUNG YOUNG LEE and NAM JIN YOO. *Apmis* Volume 111 ( 5): 586 (2003). (**Immunohistochemistry**)
2. **X-linked inhibitor of apoptosis (XIAP) protein protects against caspase activation and tissue loss after neonatal hypoxia ischemia.** Xiaoyang Wanga, Changlian Zhua, Xinhua Wanga, Henrik Hagberga, Laura Korhonend, Mats Sandberge, Dan Lindholmd and Klas Blomgren. *Neurobiology of Disease*, 16 (1) 179-189 (2004). (**Immunohistochemistry**)

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