

DESCRIPTION

Species Reactivity	Human
Specificity	Detects the mitochondria-processed form of human HTRA2/Omi.
Source	Monoclonal Mouse IgG _{2B} Clone # 229926
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human HTRA2/Omi Ala134-Glu458 Accession # O43464
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

HTRA2/Omi is the mammalian homologue of bacterial high temperature requirement protein (HtrA). HTRA2/Omi localizes to the mitochondria and is processed to expose an amino-terminal Reaper-like motif similar to SMAC/Diablo. HTRA2/Omi is released from the mitochondria in response to apoptotic insult and can interact with the BIR2 or BIR3 domains of XIAP to relieve caspase-IAP inhibition. This effect can be measured by reversing XIAP-BIR2 (R&D Systems, Catalog # 786-XB) inhibition of Caspase-7 (R&D Systems, Catalog # 823-C7) cleavage of a fluorogenic peptide (DEVD-AFC, MP Bio, Catalog # AFC-138). IC₅₀ values for this effect are typically between 0.2 and 1.5 µM. HTRA2/Omi is trimeric and functions as a serine protease. The serine protease activity may play a more central role in apoptosis than its IAP antagonizing function. A PDZ domain regulates the serine protease activity by blocking access to the active site.

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