

OMA1 polyclonal antibody

Catalog: BS75654

Host: Rabbit

Reactivity: Human, Mouse, Rat

BackGround:

Metalloprotease that is part of the quality control system in the inner membrane of mitochondria. Activated in response to various mitochondrial stress, leading to the proteolytic cleavage of target proteins, such as OPA1, UQCC3 and DELE1. Following stress conditions that induce loss of mitochondrial membrane potential, mediates cleavage of OPA1 at S1 position, leading to OPA1 inactivation and negative regulation of mitochondrial fusion. Also acts as a regulator of apoptosis: upon BAK and BAX aggregation, mediates cleavage of OPA1, leading to the remodeling of mitochondrial cristae and allowing the release of cytochrome c from mitochondrial cristae. In depolarized mitochondria, may also act as a backup protease for PINK1 by mediating PINK1 cleavage and promoting its subsequent degradation by the proteasome. May also cleave UQCC3 in response to mitochondrial depolarization. Also acts as an activator of the integrated stress response (ISR: in response to mitochondrial stress, mediates cleavage of DELE1 to generate the processed form of DELE1 (S-DELE1, which translocates to the cytosol and activates EIF2AK1/HRI to trigger the ISR. Its role in mitochondrial quality control is essential for regulating lipid metabolism as well as to maintain body temperature and energy expenditure under cold-stress conditions (By similarity. Binds cardiolipin, possibly regulating its protein turnover (By similarity. Required for the stability of the respiratory supercomplexes (By similarity.

Product:

1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

Molecular Weight:

37kDa

Swiss-Prot:

Q96E52

Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

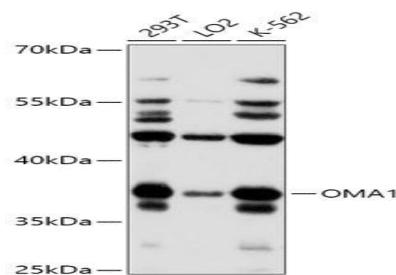
WB,1:500 - 1:2000|IF/ICC,1:50 - 1:100

Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

Modification:

Unmodification

DATA:

Western blot analysis of extracts of various cell lines, using OMA1 antibody at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit. Exposure time: 60s.

Note:

For research use only, not for use in diagnostic procedure.

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