OMA1 Polyclonal Antibody

catalog number: E-AB-90845

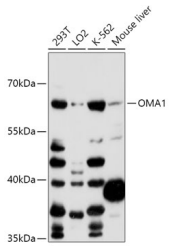
Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Reactivity	Human;Mouse
Immunogen	Recombinant fusion protein of human OMA1
Host	Rabbit
Isotype	IgG
Purification	Affinity purification
Buffer	Phosphate buffered solution, pH 7.4, containing 0.05% stabilizer and 50% glycerol.

Applications	Recommended Dilution
WB	1:500-1:2000

Data



Western blot analysis of extracts of various cell lines using OMA1 Polyclonal Antibody at 1:1000 dilution.

Observed-MW:60 kDa

Calculated-MW:55 kDa/60 kDa

Preparation & Storage

Storage	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
Shipping	The product is shipped with ice pack,upon receipt,store it immediately at the temperature recommended.

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 DELE 1. 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.

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