

Product datasheet for **TA379465**

OMA1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB,1:500 - 1:2000
Reactivity:	Human, Mouse
Modifications:	Unmodified
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 360-524 of human OMA1 (NP_660286.1).
Formulation:	Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	55kDa/60kDa
Gene Name:	OMA1 zinc metallopeptidase
Database Link:	Entrez Gene 115209 Human Q96E52



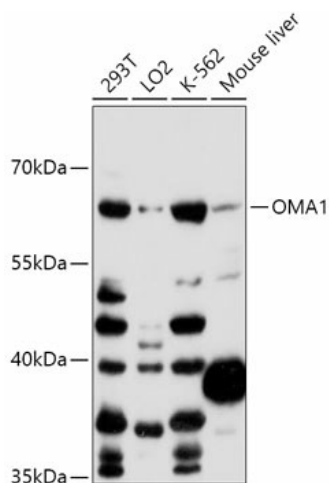
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Background:

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, UQC3 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 UQC3 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.

Synonyms:

2010001O09Rik; DAB1; FLJ33782; MPRP-1; MPRP1; YKR087C; ZMPOMA1

Product images:

Western blot analysis of extracts of various cell lines, using OMA1 antibody (TA379465) at 1:1000 dilution. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit . | Exposure time: 60s.