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Datasheet for ABIN7269095
anti-OMA1 antibody (AA 360-524)

1 Image

Overview

Quantity:	100 µL
Target:	OMA1
Binding Specificity:	AA 360-524
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This OMA1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Purpose:	OMA1 Rabbit pAb
Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 360-524 of human OMA1 (NP_660286.1).
Sequence:	AICPRDSLAL LCQWIQSKLQ EYMFNRPYSR KLEAEADKIG LLLAAKACAD IRASSVFWQQ MEFVDSLHGQ PKMPEWLSTH PSHGNRVEYL DRLIPQALKI REMCNCPPLS NPDPRLLFKL STKHFLEESE KEDLNITKKQ KMDTLPIQKQ EQIPLTYIVE KRTGS
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Characteristics:	Polyclonal Antibodies
Purification:	Affinity purification

Target Details

Target: OMA1

Alternative Name: OMA1 ([OMA1 Products](#))

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.,OMA1,2010001009Rik,DAB1,MPP1,MPP1,YKR087C,ZMPOMA1,peptidase,Cell Biology & Developmental Biology,Ubiquitin,Endocrine & Metabolism,Mitochondrial metabolism,Mitochondrial markers,OMA1

Molecular Weight: 60kDa/55kDa

Gene ID: 115209

UniProt: [Q96E52](#)

Application Details

Application Notes: WB,1:500 - 1:2000,IF,1:50 - 1:100

Restrictions: For Research Use only

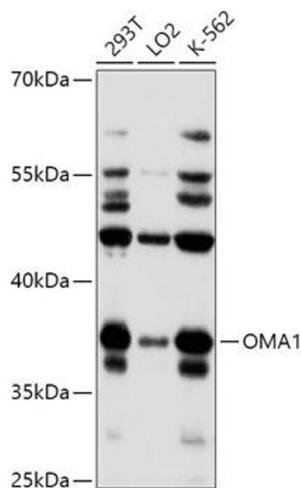
Handling

Format: Liquid

Handling

Buffer:	PBS with 0.02 % sodium azide,50 % glycerol, pH 7.3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20°C. Avoid freeze / thaw cycles.

Images



Western Blotting

Image 1. Western blot analysis of extracts of various cell lines, using OM antibody (4230) at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (ABIN1684268 and ABIN3020597) at 1:10000 dilution. Lysates/proteins: 25 µg per lane. Blocking buffer: 3 % nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 60s.