Recombinant Human OMA1 Protein, His-tagged

Cat. No. OMA1-01H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human OMA1 (217-524) protein with a N-terminal His-tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	217-524
Description	OMA1 is an ATP-independent metalloproteinase encoded by OMA1. It is localized to the mitochondrial inner membrane and is comprised of a matrix-facing N-terminal domain, a transmembrane domain, and a C-terminal M48 metallopeptidase domain that is exposed to the intermembrane space. Under various stress conditions, including oxidative stress, heat stress, and mitochondrial membrane depolarization, OMA1 is activated and cleaves long isoforms of the GTPase optic atrophy 1 (OPA1) at the S1 cleavage site, leading to inhibition of mitochondrial fusion and increased mitochondrial fragmentation.Under stress conditions, OMA1 is also autocatalytically degraded, thereby limiting, and allowing for reversal of, the stress response.Oma1-/- mouse embryonic fibroblasts exhibit a loss of mitochondrial fragmentation upon exposure to hydrogen peroxide. Mice lacking Oma1 exhibit impaired thermogenesis, increased hepatic steatosis and serum triglyceride levels, and high-fat diet-induced obesity.
Molecular Mass	37.1 kDa

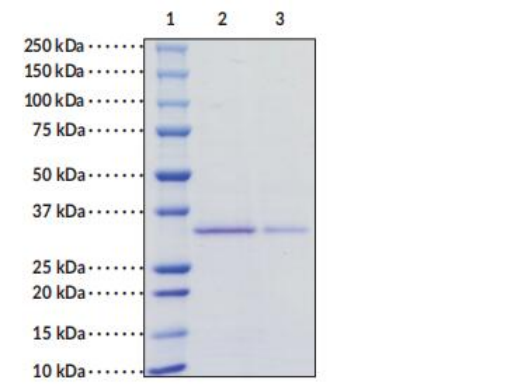
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Applications	ELISA, WB
Stability	≥ 1 year
Storage	Store at -80 centigrade
Storage Buffer	50 mM Tris, pH 8.0, with 150 mM sodium chloride, 10% glycerol, 0.5 M L-arginine, and 2 μM zinc chloride
Shipping	Dry ice

GENE INFORMATION

Gene Name	OMA1 OMA1 zinc metallopeptidase [Homo sapiens (human)]
Official Symbol	OMA1
Synonyms	OMA1; OMA1 zinc metallopeptidase; DAB1; MPRP1; MPRP-1; YKR087C; ZMPOMA1; peptidase; 2010001O09Rik; metalloendopeptidase OMA1, mitochondrial; OMA1 homolog, zinc metallopeptidase; OMA1 zinc metallopeptidase homolog; metalloprotease-related protein 1; overlapping activity with M-AAA protease; overlapping with the m-AAA protease 1 homolog; zinc metallopeptidase OMA1
Gene ID	115209
mRNA Refseq	NM_145243
Protein Refseq	NP_660286
MIM	617081

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UniProt ID	Q96E52
SDS-PAGE of OMA1	 Lane 1: MW Markers, Lane 2: Metalloendopeptidase OMA1(4 μg), Lane 3: Metalloendopeptidase OMA1(2 μg), Representative gel image shown; actual purity may vary between each batch.

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