

## **Anti-OPA1** antibody



**Description** Unconjugated Rabbit polyclonal to OPA1

Model STJ193080

**Host** Rabbit

**Reactivity** Human, Mouse, Rat

**Applications** ELISA, WB

**Gene ID** 4976

Gene Symbol OPA1

**Dilution range** WB 1:500-2000 ELISA 1:5000-20000

**Specificity** OPA1 Polyclonal Antibody detects endogenous levels of protein.

**Tissue Specificity** Highly expressed in retina. Also expressed in brain, testis, heart and skeletal

muscle. Isoform 1 expressed in retina, skeletal muscle, heart, lung, ovary, colon, thyroid gland, leukocytes and fetal brain. Isoform 2 expressed in colon,

liver, kidney, thyroid gland and leukocytes. Low levels of all isoforms

expressed in a variety of tissues.

**Purification** OPA1 antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

**Note** For Research Use Only (RUO).

**Protein Name** Dynamin-like 120 kDa protein, mitochondrial Optic atrophy protein 1

Dynamin-like 120 kDa protein, form S1

Molecular Weight 105 kDa

**Clonality** Polyclonal

**Conjugation** Unconjugated

**Isotype** IgG

**Formulation** Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.

**Concentration** 1 mg/ml

**Storage Instruction** Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:8140OMIM:125250</u>

Alternative Names Dynamin-like 120 kDa protein, mitochondrial Optic atrophy protein 1

Dynamin-like 120 kDa protein, form S1

**Function** Dynamin-related GTPase required for mitochondrial fusion and regulation of

apoptosis. May form a diffusion barrier for proteins stored in mitochondrial cristae. Proteolytic processing in response to intrinsic apoptotic signals may lead to disassembly of OPA1 oligomers and release of the caspase activator cytochrome C (CYCS) into the mitochondrial intermembrane space. May also play a role in mitochondrial genome maintenance. Dynamin-like 120 kDa protein, form S1: Inactive form produced by cleavage at S1 position by OMA1 following stress conditions that induce loss of mitochondrial membrane potential, leading to negative regulation of mitochondrial fusion.

Cellular Localization Mitochondrion inner membrane Mitochondrion intermembrane space

Post-translational PARL-dependent proteolytic processing releases an antiapoptotic soluble form

**Modifications** not required for mitochondrial fusion. Cleaved by OMA1 at position S1

following stress conditions.

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