

Anti-OPA1 Antibody
Rabbit polyclonal antibody to OPA1
Catalog # AP60195

Specification

Anti-OPA1 Antibody - Product Information

Application	WB
Primary Accession	O60313
Other Accession	P58281
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	111631

Anti-OPA1 Antibody - Additional Information

Gene ID 4976

Other Names

KIAA0567; Dynamin-like 120 kDa protein mitochondrial; Optic atrophy protein 1

Target/Specificity

Recognizes endogenous levels of OPA1 protein.

Dilution

WB~~WB (1/500 - 1/1000)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-OPA1 Antibody - Protein Information

Name OPA1

Function

Dynamin-related GTPase that is essential for normal mitochondrial morphology by regulating the equilibrium between mitochondrial fusion and mitochondrial fission (PubMed:16778770, PubMed:17709429, PubMed:20185555, PubMed:24616225, PubMed:28746876).

Coexpression of isoform 1 with shorter alternative products is required for optimal activity in promoting mitochondrial fusion (PubMed:<a href="http://www.uniprot.org/citations/17709429"

target="_blank">>17709429). Binds lipid membranes enriched in negatively charged phospholipids, such as cardiolipin, and promotes membrane tubulation (PubMed:20185555). The intrinsic GTPase activity is low, and is strongly increased by interaction with lipid membranes (PubMed:20185555). Plays a role in remodeling cristae and the release of cytochrome c during apoptosis (By similarity). 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 (By similarity). Plays a role in mitochondrial genome maintenance (PubMed:20974897, PubMed:18158317).

Cellular Location

Mitochondrion inner membrane; Single-pass membrane protein. Mitochondrion intermembrane space {ECO:0000250|UniProtKB:P58281}. Mitochondrion membrane. Note=Detected at contact sites between endoplasmic reticulum and mitochondrion membranes

Tissue Location

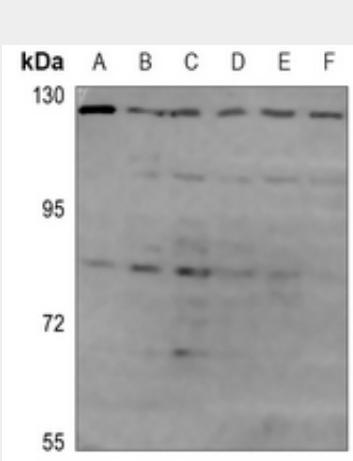
Highly expressed in retina. Also expressed in brain, testis, heart and skeletal muscle. Isoform 1 expressed in retina, skeletal muscle, heart, lung, ovary, colon, thyroid gland, leukocytes and fetal brain. Isoform 2 expressed in colon, liver, kidney, thyroid gland and leukocytes. Low levels of all isoforms expressed in a variety of tissues.

Anti-OPA1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-OPA1 Antibody - Images



Western blot analysis of OPA1 expression in HEK293T (A), H1688 (B), H1792 (C), mouse kidney (D), rat kidney (E), rat heart (F) whole cell lysates.

Anti-OPA1 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human OPA1. The exact sequence is proprietary.