

Summary

Production Name	OPA1 (8F7) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Immunogen

Gene Name	OPA1
Alternative Names	Large GTP binding protein; largeG; MGM1; Mitochondrial dynamin like GTPase; NPG; NTG; OAK; OPA 1;
Gene ID	4976.0
SwissProt ID	O60313.

Application

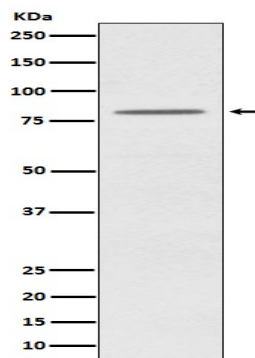
Dilution Ratio	WB 1:500-1:2000
Molecular Weight	112kDa

Background

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. Dynamin-related GTPase that is essential for normal mitochondrial morphology by regulating the equilibrium between mitochondrial fusion and mitochondrial fission (PubMed:[16778770](http://www.uniprot.org/citations/16778770)), PubMed:[17709429](http://www.uniprot.org/citations/17709429)), PubMed:[20185555](http://www.uniprot.org/citations/20185555)), PubMed:[24616225](http://www.uniprot.org/citations/24616225)), PubMed:[28746876](http://www.uniprot.org/citations/28746876)). Coexpression of isoform 1 with shorter alternative products is required for optimal activity in promoting mitochondrial fusion (PubMed:[17709429](http://www.uniprot.org/citations/17709429)). Binds lipid membranes enriched in negatively charged phospholipids, such as cardiolipin, and promotes membrane tubulation (PubMed:[20185555](http://www.uniprot.org/citations/20185555)). The intrinsic GTPase activity is low, and is strongly increased by interaction with lipid membranes (PubMed:[20185555](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/20974897)), PubMed:[18158317](http://www.uniprot.org/citations/18158317)).

Research Area

Image Data



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Catalog #: AMRe15355



Western blot analysis of OPA1 expression in HeLa cell lysate.

Note

For research use only.