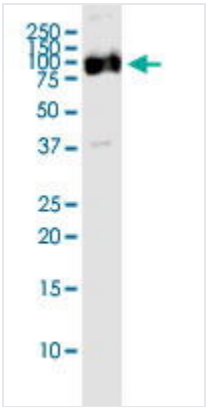
OPA1 Antibody – Mouse Monoclonal

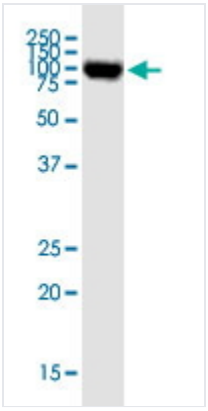
PRODUCT OVERVIEW

Product Name	OPA1, Monoclonal Antibody
Full Product Name	OPA1 (Pptic Atrophy 1 (Autosomal Dominant), FLJ12460, KIAA0567, MGM1, NPG, NTG, LargeG) (APC)
Product Gene Name	anti-OPA1 antibody
Product Synonym Names	Pptic Atrophy 1 (Autosomal Dominant); FLJ12460; KIAA0567; MGM1; NPG; NTG; LargeG
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	8A20
Host	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Allophycocyanin (APC).
Purity/Purification	Purified
Specificity	Recognizes OPA1.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amo to immediate use. Further dilutions can be made in assay buffer. Caution: APC conjugates are sensitive to light. For maximum recovery of product, cen original vial prior to removing the cap.
OMIM	125250
3D Structure	ModBase 3D Structure for O60313
Immunogen	OPA1 (NP_056375, 851aa-960aa) partial recombinant protein with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	NHCNLCRRGFYYYQRHFVDSELECNDVVLFWRIQRMLAITANTLRQQLTNTEVRRLEKNVKEVLEDFAEDGEKKIKLLTGKRVQLAEDLKKVREIQEKLDA
Conjugate	APC
Product Categories/Family for anti-OPA1 antibody	Antibodies; Proteins
Applications Tested/Suitable for anti-OPA1 antibody	ELISA (EIA), Western Blot (WB)
Application Notes for anti-OPA1 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-OPA1 antibody	This gene product is a nuclear-encoded mitochondrial protein with similarity to dynamin-related GTPases. It is a component of the mitochondrial networ in this gene have been associated with optic atrophy type 1, which is a dominantly inherited optic neuropathy resulting in progressive loss of visual acui many cases to legal blindness. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq]

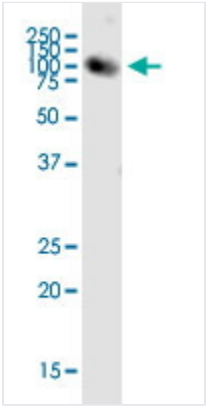
Other Notes	Small volumes of anti-OPA1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necess centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional may apply.
Searchable Terms for OPA1 purchase	MBS6170315 is an antibody targeting OPA1. Also known as OPA1 (Pptic Atrophy 1 (Autosomal Dominant), FLJ12460, KIAA0567, MGM1, NPG, NTG, (APC). Host: Mouse.



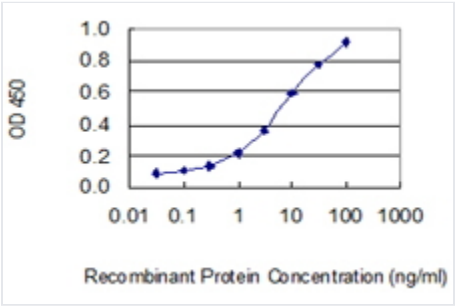
Western Blot (WB) of anti-OPA1 antibody
OPA1 monoclonal antibody (M02), clone 8A20. Western Blot analysis of OPA1 expression in Daoy.



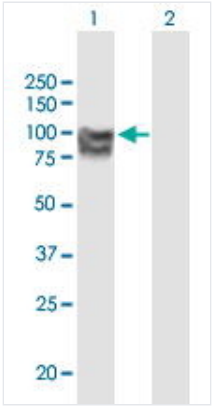
Western Blot (WB) of anti-OPA1 antibody
OPA1 monoclonal antibody (M02), clone 8A20. Western Blot analysis of OPA1 expression in human ovarian cancer.



Western Blot (WB) of anti-OPA1 antibody
OPA1 monoclonal antibody (M02), clone 8A20. Western Blot analysis of OPA1 expression in rat brain.



Testing Data of anti-OPA1 antibody
Detection limit for recombinant GST tagged OPA1 is 0.1 ng/ml as a capture antibody.



Western Blot (WB) of anti-OPA1 antibody
Western Blot analysis of OPA1 expression in transfected 293T cell line by OPA1 monoclonal antibody (M02), clone 8A20.Lane 1: OPA1 transfected lysate (Predicted MW: 111.6 KDa).Lane 2: Non-transfected lysate.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for OPA1. It may not necessarily be applicable to this product.

NCBI GI #	224831243
NCBI GeneID	4976
NCBI Accession #	NP_056375
UniProt Primary Accession #	O60313
UniProt Related Accession #	O60313
GenBank Nucleotide #	NP_056375.2
NCBI Official Full Name	dynamin-like 120 kDa protein, mitochondrial isoform 1 preproprotein
NCBI Official Synonym Full Names	OPA1 mitochondrial dynamin like GTPase
NCBI Official Symbol	OPA1
NCBI Official Synonym Symbols	NPG; NTG; MGM1; BERHS; largeG; MTDPS14
UniProt Protein Name	Dynamin-like 120 kDa protein, mitochondrial
UniProt Synonym Protein Names	Optic atrophy protein 1
Protein Family	Dynamin-like 120 kDa protein
UniProt Gene Name	OPA1
UniProt Synonym Gene Names	KIAA0567
UniProt Entry Name	OPA1_HUMAN
NCBI Protein Information	dynamin-like 120 kDa protein, mitochondrial
NCBI Summary for OPA1	The protein encoded by this gene is a nuclear-encoded mitochondrial protein with similarity to dynamin-related GTPases. The encoded protein localizes to the inner mitochondrial membrane and helps regulate mitochondrial stability and energy output. This protein also sequesters cytochrome c. Mutations in this gene have been associated with optic atrophy type 1, which is a dominantly inherited optic neuropathy resulting in progressive loss of visual acuity, leading in many cases to legal blindness. [provided by RefSeq, Aug 2017]
UniProt Comments for OPA1	OPA1: a 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. Defects in OPA1 are the cause of optic atrophy 1 and deafness. Eight splice-variant isoforms have been described. Protein type: Membrane protein, integral; Hydrolase; Mitochondrial; Apoptosis; EC 3.6.5.5 Chromosomal Location of Human Ortholog: 3q29 Cellular Component: cytoplasm; dendrite; integral to membrane; membrane; mitochondrial crista; mitochondrial inner membrane; mitochondrial intermembrane space; mitochondrial outer membrane; mitochondrion; nucleoplasm Molecular Function: GTP binding; GTPase activity; magnesium ion binding; protein binding Biological Process: apoptosis; axon transport of mitochondrion; inner mitochondrial membrane organization and biogenesis; metabolic process; mitochondrial fission; mitochondrial fusion; mitochondrial genome maintenance; mitochondrion organization and biogenesis; positive regulation of neuron maturation; visual perception Disease: Glaucoma, Normal Tension, Susceptibility To; Optic Atrophy 1; Optic Atrophy With Or Without Deafness, Ophthalmoplegia, Myopathy, Ataxia, And Neuropathy
Research Articles on OPA1	**1.** All the patients with the autosomal dominant optic atrophy-plus phenotype carried one of the missense mutations in the OPA1 gene.

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