

Rabbit OPA1 Polyclonal Antibody | anti-OPA1 antibody

Anti-OPA1 Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA126994	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

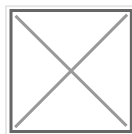
PRODUCT SYNONYMS

OPA1; Polyclonal Antibody; Anti-OPA1 Antibody Picoband; Hereditary hemochromatosis protein; HLA-H; HFE; HLAH; anti-OPA1 antibody

PRODUCT SPECIFICATIONS

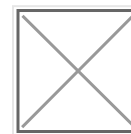
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Expressed in all tissues tested except brain.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-OPA1 antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E coli-derived human OPA1 recombinant protein (Position: D296-Q562).
Subcellular Localization	Cell membrane, Single-pass type I membrane protein
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Binds to transferrin receptor (TFR) and reduces its affinity for iron-loaded transferrin.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of Daudi cells using anti-OPA1 antibody (AAA126994). Overlay histogram showing Daudi cells stained with AAA126994 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-OPA1 Antibody (AAA126994, 1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IF (Immunofluorescence)

Figure 2. IF analysis of OPA1 using anti-OPA1 antibody (AAA126994). OPA1 was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-OPA1 Antibody (AAA126994) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



WB (Western Blot)

Figure 1. Western blot analysis of OPA1 using anti-OPA1 antibody (AAA126994). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Ramos whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human PANC-1 whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: mouse eye tissue lysates, Lane 7: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-OPA1 antigen affinity purified polyclonal antibody (#AAA126994) at 0.25ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for OPA1 at approximately 80-100 kDa. The expected band size for OPA1 is at 112,80-100 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-OPA1 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-OPA1 antibody	Primary Antibodies ; Cofactors ; Vitamins/Minerals ; Hematopoietic Progenitors ; Metabolism ; Myeloid ; Pathways and Processes ; Signal Transduction ; Stem Cells ; Vitamins/Minerals
References	1. Patten DA, Wong J, Khacho M, Soubannier V, Mailloux RJ, Pilon-Larose K, MacLaurin JG, Park DS, McBride HM, Trinkle-Mulcahy L, Harper ME, Germain M, Slack RS (Nov 2014). "OPA1-dependent cristae modulation is essential for cellular adaptation to metabolic demand". The EMBO Journal 33 (22): 2676-91.2. Santarelli R, Rossi R, Scimemi P, Cama E, Valentino ML, La Morgia C, Caporali L, Liguori R, Magnavita V, Monteleone A, Biscaro A, Arslan E, Carelli V (Mar 2015). "OPA1-related auditory neuropathy: site of lesion and outcome of cochlear implantation". Brain 138 (Pt 3): 563-76.

NCBI AND UNIPROT INFORMATION

NCBI GI #	224831243
NCBI GeneID	4976
NCBI Accession #	NP_056375.2
NCBI GenBank Nucleotide #	NM_015560.2
UniProt Accession #	O60313; D3DNW4
Molecular Weight	115,884 Da
NCBI Official Full Name	dynamamin-like 120 kDa protein, mitochondrial isoform 1
NCBI Official Synonym Full Names	OPA1, mitochondrial dynamamin like GTPase
NCBI Official Symbol	OPA1
NCBI Official Synonym Symbols	NPG; NTG; MGM1; BERHS; largeG; MTDPS14
NCBI Protein Information	dynamamin-like 120 kDa protein, mitochondrial
UniProt Protein Name	Dynamamin-like 120 kDa protein, mitochondrial
UniProt Gene Name	OPA1
UniProt Synonym Gene Names	KIAA0567

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/opa1-antibody-flow-cytometry-immunofluorescence-immunocytochemistry-western-blot-elisa/126994>