

## Rabbit anti-Human OPA3 Polyclonal Antibody | anti-OPA3 antibody

Anti-OPA3 Antibody Picoband

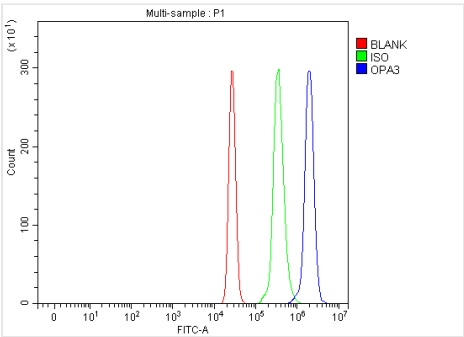
|                               |                       |                            |                                                                              |
|-------------------------------|-----------------------|----------------------------|------------------------------------------------------------------------------|
| CATALOG #<br><b>AAA127360</b> | HOST<br><b>Rabbit</b> | REACTIVITY<br><b>Human</b> | APPLICATIONS<br><b>ELISA, Flow Cytometry, Functional Assay, Western Blot</b> |
|-------------------------------|-----------------------|----------------------------|------------------------------------------------------------------------------|

### PRODUCT SYNONYMS

OPA3; Polyclonal Antibody; Anti-OPA3 Antibody Picoband; AP-2 complex subunit mu; spindle and kinetochore associated complex subunit 2; Spindle and kinetochore-associated protein 2; Protein FAM33A; SKA2; FAM33A; anti-OPA3 antibody

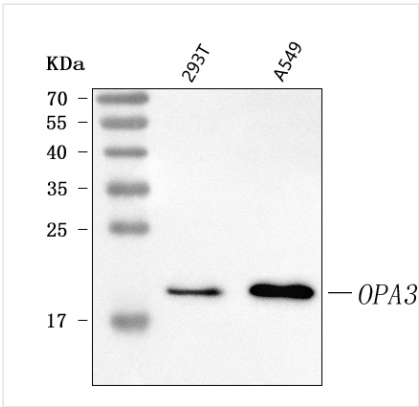
### PRODUCT SPECIFICATIONS

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Reactivity                                     | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Clonality                                      | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Isotype                                        | Rabbit IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Purity/Purification                            | Immunogen affinity purified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Form/Format                                    | Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Applicable Applications for anti-OPA3 antibody | ELISA, FCM/FACS (Flow Cytometry), WB (Western Blot)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Immunogen                                      | E coli-derived human OPA3 recombinant protein (Position: M1-K179).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Subcellular Localization                       | Secreted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 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                               | Component of the SKA1 complex, a microtubule-binding subcomplex of the outer kinetochore that is essential for proper chromosome segregation (PubMed:17093495, PubMed:19289083, PubMed:23085020). Required for timely anaphase onset during mitosis, when chromosomes undergo bipolar attachment on spindle microtubules leading to silencing of the spindle checkpoint (PubMed:17093495). The SKA1 complex is a component of the kinetochore-microtubule interface and ly associates with microtubules as oligomeric assemblies (PubMed:19289083). The complex facilitates the processive movement of microspheres along a microtubule in a depolymerization-coupled manner (PubMed:17093495, PubMed:19289083). In the complex, it is required for SKA1 localization (PubMed:19289083). Affinity for microtubules is synergistically enhanced in the presence of the ndc-80 complex and may allow the ndc-80 complex to track depolymerizing microtubules (PubMed:23085020). |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |



FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of U937 cells using anti-OPA3 antibody (AAA127360). Overlay histogram showing U937 cells stained with AAA127360 (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-OPA3 Antibody (AAA127360, 1ug/1x10<sup>6</sup> 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/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



WB (Western Blot)

Figure 1. Western blot analysis of OPA3 using anti-OPA3 antibody (AAA127360). 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 293T whole cell lysates, Lane 2: human A549 whole cell 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-OPA3 antigen affinity purified polyclonal antibody (#AAA127360) at 0.5ug/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 OPA3 at approximately 20 kDa. The expected band size for OPA3 is at 20 kDa.

ADDITIONAL INFORMATION

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-OPA3 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-OPA3 antibody   | Primary Antibodies; DNA/RNA; Epigenetics and Nuclear Signaling; RNA Processing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| References                                         | 1. Anikster, Y., Kleta, R., Shaag, A., Gahl, W. A., Elpeleg, O. Type III 3-methylglutaconic aciduria (optic atrophy plus syndrome, or Costeff optic atrophy syndrome): identification of the OPA3 gene and its founder mutation in Iraqi Jews. Am. J. Hum. Genet. 69: 1218-1224, 2001. 2. Arif, B., Kumar, K. R., Seibler, P., Vulinovic, F., Fatima, A., Winkler, S., Nurnberg, G., Thiele, H., Nurnberg, P., Jamil, A. Z., Bruggemann, A., Abbas, G., Klein, C., Lohmann, K. A novel OPA3 mutation revealed by exome sequencing: an example of reverse phenotyping. JAMA Neurol. 70: 783-787, 2013. 3. Carmi, N., Lev, D., Leshinsky-Silver, E., Anikster, Y., Blumkin, L., Kivity, S., Lerman-Sagie, T., Zerem, A. Atypical presentation of Costeff syndrome--severe psychomotor involvement and electrical status epilepticus during slow wave sleep. Europ. J. Paediat. Neurol. 19: 733-736, 2015. |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                           |
|----------------------------------|---------------------------------------------------------------------------|
| NCBI GI #                        | 20139177                                                                  |
| NCBI GeneID                      | 80207                                                                     |
| UniProt Accession #              | Q9H6K4; Q6P384; Q8N784                                                    |
| Molecular Weight                 | 179                                                                       |
| NCBI Official Full Name          | Optic atrophy 3 protein                                                   |
| NCBI Official Synonym Full Names | optic atrophy 3 (autosomal recessive, with chorea and spastic paraplegia) |
| NCBI Official Symbol             | OPA3                                                                      |
| NCBI Official Synonym Symbols    | MGA3                                                                      |

|                          |                                                                              |
|--------------------------|------------------------------------------------------------------------------|
| NCBI Protein Information | optic atrophy 3 protein; Optic atrophy 3 (Iraqi-Jewish 'optic atrophy plus') |
| UniProt Protein Name     | Optic atrophy 3 protein                                                      |
| UniProt Gene Name        | <b>OPA3</b>                                                                  |
| UniProt Entry Name       | OPA3_HUMAN                                                                   |

**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/opa3-antibody-flow-cytometry-western-blot-elisa/127360>