

## Anti-Zebrafish OPA1 Antibody Picoband®

Catalog Number: AZQ5U3A7

### About OPA1

Dynamin-like 120 kDa protein, mitochondrial is a protein that in humans is encoded by the OPA1 gene. It is mapped to 3q29. This protein regulates mitochondrial fusion and cristae structure in the inner mitochondrial membrane (IMM) and contributes to ATP synthesis and apoptosis. This gene product is a nuclear-encoded mitochondrial protein with similarity to dynamin-related GTPases. It is a component of the mitochondrial network. 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. Multiple transcript variants encoding different isoforms have been found for this gene.

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### Overview

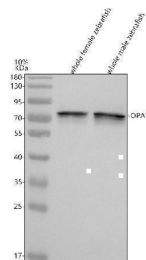
|                      |                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-Zebrafish OPA1 Antibody Picoband®                                                                                                                                                                                                                                                                                                                                                                                      |
| Reactive Species     | Zebrafish                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Description          | Boster Bio Anti-Zebrafish OPA1 Antibody Picoband® catalog #AZQ5U3A7. Tested in WB, IHC applications. This antibody reacts with Zebrafish. 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. |
| Application          | IHC, WB                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Clonality            | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Formulation          | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .                                                                                                                                                                                                                                                                                                                                   |
| Storage Instructions | At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.                                                                                                                                                                                                                           |
| Host                 | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Uniprot ID           | Q5U3A7                                                                                                                                                                                                                                                                                                                                                                                                                      |

### Technical Details

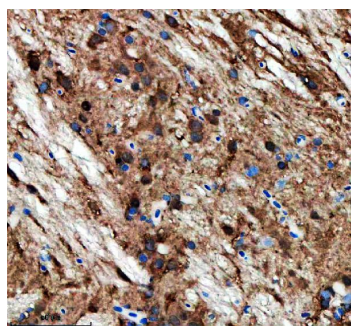
|           |                                                                         |
|-----------|-------------------------------------------------------------------------|
| Immunogen | E.coli-derived zebrafish OPA1 recombinant protein (Position: D302-Q568) |
| Form      | Lyophilized                                                             |

|                     |                                                                                                                  |
|---------------------|------------------------------------------------------------------------------------------------------------------|
| Concentration       | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.                                        |
| Purification        | Immunogen affinity purified.                                                                                     |
| Suggested Dilutions | Western blot, 0.25-0.5 ug/ml, Zebrafish<br>Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Zebrafish |

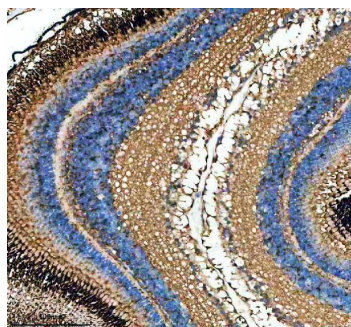
## Anti-Zebrafish OPA1 Antibody Picoband® (AZQ5U3A7) Images



Western blot analysis of OPA1 using anti-OPA1 antibody (AZQ5U3A7). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: whole female zebrafish tissue lysates, Lane 2: whole male zebrafish 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 (AZQ5U3A7) at 0.5 ug/mL overnight at 4°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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for OPA1 at approximately 80 kDa. The expected band size for OPA1 is at 112 kDa.



IHC analysis of OPA1 using anti-OPA1 antibody (AZQ5U3A7). OPA1 was detected in a paraffin-embedded section of zebrafish brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-OPA1 Antibody (AZQ5U3A7) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of OPA1 using anti-OPA1 antibody (AZQ5U3A7). OPA1 was detected in a paraffin-embedded section of zebrafish eye tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-OPA1 Antibody (AZQ5U3A7) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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For Research Use Only. Not for use in diagnostic procedures.