

## Anti-Zebrafish PRDX4 Antibody Picoband®

Catalog Number: AZA3KP44

### About PRDX4

PRDX4 (peroxiredoxin 4) is also known as AOE37-2. The protein encoded by this gene is an antioxidant enzyme and belongs to the peroxiredoxin family. Functional analysis showed that PRDX4 protects glutamine synthetase from inactivation. Yeast 2-hybrid, immunoprecipitation, and immunoblot analyses indicated that PRDX4 and PRDX1 are capable of homodimerization and heterodimerization with each other but not with the mitochondrial PRDX3. Gel mobility shift and immunoblot analysis found that PRDX4 depletes NFκB binding activity together with a reduction in the amounts of p50, p65, and phosphorylated IKBA, as well as a reduction in the expression of HIV-1 viral proteins. Expression of PRDX4, alone or with PRDX1, increased the resistance of yeast cells to oxidant-induced toxicity. Jin et al. suggested PRDX4 modulates IKBA phosphorylation in the cytoplasm and thus affects a peroxiredoxin-dependent redox step.

### Overview

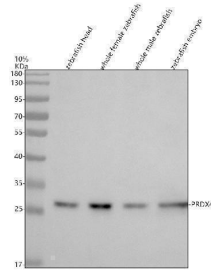
Product Name	Anti-Zebrafish PRDX4 Antibody Picoband®
Reactive Species	Zebrafish
Description	Boster Bio Anti-Zebrafish PRDX4 Antibody Picoband® catalog # AZA3KP44. Tested in WB, IHC applications. This antibody reacts with Zebrafish. The brand Picoband indicates this is a premium antibody that guarantees 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	A3KP44

### Technical Details

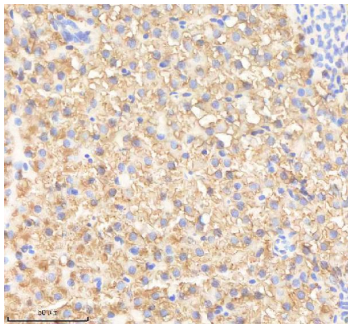
Immunogen	E.coli-derived zebrafish PRDX4 recombinant protein (Position: S167-N260).
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Zebrafish

Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Zebrafish

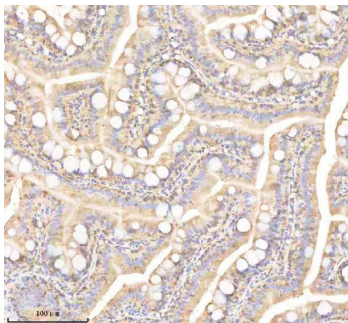
## Anti-Zebrafish PRDX4 Antibody Picoband® (AZA3KP44) Images



Western blot analysis of PRDX4 using anti-PRDX4 antibody (AZA3KP44). 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: zebrafish head tissue lysates, Lane 2: whole female zebrafish tissue lysates, Lane 3: whole male zebrafish tissue lysates, Lane 4: zebrafish embryo 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-PRDX4 antigen affinity purified polyclonal antibody (AZA3KP44) 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 PRDX4 at approximately 27 kDa. The expected band size for PRDX4 is at 31 kDa.



IHC analysis of PRDX4 using anti-PRDX4 antibody (AZA3KP44). PRDX4 was detected in a paraffin-embedded section of zebrafish liver 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-PRDX4 Antibody (AZA3KP44) 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 PRDX4 using anti-PRDX4 antibody (AZA3KP44). PRDX4 was detected in a paraffin-embedded section of zebrafish colon 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-PRDX4 Antibody (AZA3KP44) 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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Anti-Zebrafish PRDX4 Antibody

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