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Peroxiredoxin IV Antibody (3A1)

Mouse Monoclonal Antibody

Catalog # ABV11154

Specification

Peroxiredoxin IV Antibody (3A1) - Product Information

Application	**WB, ICC, IP**
Primary Accession	Q13162
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG 1**
Calculated MW	**30540**

Peroxiredoxin IV Antibody (3A1) - Additional Information

Gene ID 10549

Positive Control	**IP analysis : HeLa cell lysate. IHC staining : HeLa cells**
Application & Usage	**Western blot: 2-4 µl/ml, IP: 1-2 µl, ICC: 20 µl/ml.**

Other Names
Peroxiredoxin 4, PRX-4, AOE37-2, PRDX4.

Target/Specificity
Peroxiredoxin IV

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µl of antibody in HEPES with 0.15 M NaCl, 0.01 % BSA, 0.03 % sodium azide, and 50 % glycerol

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
Peroxiredoxin IV Antibody (3A1) is for research use only and not for use in diagnostic or therapeutic procedures.

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Peroxiredoxin IV Antibody (3A1) - Protein Information

Name PRDX4

Function
Thiol-specific peroxidase that catalyzes the reduction of hydrogen peroxide and organic hydroperoxides to water and alcohols, respectively. Plays a role in cell protection against oxidative stress by detoxifying peroxides and as sensor of hydrogen peroxide-mediated signaling events. Regulates the activation of NF-kappa-B in the cytosol by a modulation of I-kappa-B-alpha phosphorylation.

Cellular Location
Cytoplasm. Endoplasmic reticulum. Note=Cotranslationally translocated to and retained within the endoplasmic reticulum. A small fraction of the protein is cytoplasmic.

Peroxiredoxin IV Antibody (3A1) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Peroxiredoxin IV Antibody (3A1) - Images

Peroxiredoxin IV Antibody (3A1) - Background

Peroxiredoxin (Prx) is a growing peroxidase family, whose mammalian members have been known to connect with cell proliferation, differentiation, and apoptosis. Many isoforms (about 50 proteins), collected in accordance to the amino acid sequence homology, particularly amino-terminal region containing active site cysteine residue, and the thiol-specific antioxidant activity, distribute throughout all the kingdoms. Among them, mammalian Prx consists of 6 different members grouped into typical 2-Cys, atypical 2-Cys Prx, and 1-Cys Prx. Except Prx VI belonging to 1-Cys Prx subgroup, the other five 2-Cys Prx isotypes have the thioredoxin-dependent peroxidase (TPx) activity utilizing thioredoxin, thioredoxin reductase, and NADPH as a reducing system. Mammalian Prxs are 20 – 30 kDa in molecular size and vary in subcellular localization: Prx I, II, and VI in cytosol, Prx III in mitochondria, Prx IV in ER and secretion, Prx V showing complicated distribution including peroxisome, mitochondria and cytosol. Prx IV is probably involved in redox regulation of the cell. Regulates the activation of NFkappaB in the cytosol by a modulation of I-kappa-B-alpha phosphorylation.