

Anti-Peroxiredoxin 1/PRDX1 Antibody Picoband® Fluoro488 Conjugated

Catalog Number: PB9348-Fluoro488

About PRDX1

PRDX1 (Peroxiredoxin 1), also called PRX1, PAGA or NKEFA, is a thiol reductase that plays critical roles in oxidative and thermal stress defense mechanisms through its abilities to metabolize H₂O₂ and act as a molecular chaperone, respectively. This gene encodes a member of the peroxiredoxin family of antioxidant enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides. The PRDX1 gene is mapped on 1p34.1. Prdx1 was expressed in differentiating motor neuron cells in developing embryonic chicken and mouse spinal cords. Immunoprecipitation analysis showed that GDE2 interacted directly with PRDX1 in embryonic chicken spinal cord extracts and in transfected HEK293T cells. This protein may have a proliferative effect and play a role in cancer development or progression. In differentiating spinal cord, Prdx1 was required to activate Gde2 by reducing an intramolecular cystine bridge between the Gde2 N- and C-terminal domains. An intramolecular disulfide bond between the GDE2 N- and C-terminal domains inhibits GDE2 function, and that reduction of this cystine by PRDX1 activates GDE2 for the induction of motor neuron differentiation.

Overview

Product Name	Anti-Peroxiredoxin 1/PRDX1 Antibody Picoband® Fluoro488 Conjugated
Reactive Species	Human, Mouse, Rat
Application	Recommended applications are based on the parent unconjugated antibody (Flow Cytometry, IF, IHC, ICC, WB). Customers may select suitable applications according to their experimental needs.
Clonality	Polyclonal
Formulation	Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na ₂ HPO ₄ , 0.02% NaN ₃ .
Storage Instructions	At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light.
Host	Rabbit
Uniprot ID	Q06830

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Peroxiredoxin 1, different from the related mouse sequence by one amino acid, and identical to the related rat sequence.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5 mg/mL
Purification	Immunogen affinity purified.

Conjugate	Fluoro488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Suggested Dilutions	Optimal dilutions should be determined by end users.

1 Publications Citing This Product

1. PubMed ID: 10.3389/fnins.2020.00181, Prdx1 Reduces Intracerebral Hemorrhage-Induced Brain Injury via Targeting Inflammation- and Apoptosis-Related mRNA Stability

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