

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Peroxiredoxin 2 in Western blots. In Western blots, approximately 25%-40% cross-reactivity with recombinant human (rh) Peroxiredoxin 1 and 4 is observed, and less than 10% cross-reactivity with rhPeroxiredoxin 3, 5, and 6 is
Source	Monoclonal Mouse IgG _{2A} Clone # 477719
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Peroxiredoxin 2 Met1-Asn198 Accession # P32119
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Human peroxiredoxin-2 (Prx-2 or PRDX2; also Thioredoxin Peroxidase 1) is a 22 kDa antioxidant enzyme that belongs to the *typical 2-Cys* class of the THP/ahpC family of proteins. The precursor molecule is 198 amino acids (aa) in length, and has two catalytic cysteines, one at Cys50 and a second at Cys171. Prx-2 is an obligate homodimer. Inactive, it is apparently noncovalently associated. Upon peroxide binding to Cys50 of subunit 1, the Cys171 of subunit 2 interacts with Cys50 of subunit 1 to complete the antioxidation, generating a disulfide bond between Cys50 and Cys171. Subsequent reduction restores the subunits to the basal state. There are two additional isoforms. Isoform-b shows a deletion of aa 36-86, while isoform c shows a substitution of 56 aa after residue 86. Human Prx-2 is 93% aa identical to mouse and rat Prx-2.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.