Human/Mouse/Rat Peroxiredoxin 1 Alexa Fluor® 700-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF3488N
100 µg

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse and rat Peroxiredoxin 1 in Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human Peroxiredoxin 3 or 4 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Peroxiredoxin 1 Met1-Lys199 Accession # Q06830
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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.*

Knockout Validated	Optimal dilution of this antibody should be experimentally determined.
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 1 (Prx-1 or PRDX1; also Thioredoxin Peroxidase 2) is a 22 kDa antioxidant enzyme that belongs to the *typical 2-Cys* class of the THP/ahpC family of proteins. The molecule is 199 amino acids (aa) in length, and has two catalytic cysteines, one at Cys52, and a second at Cys173. Prx-1 is an obligate homodimer. Inactive, it is apparently noncovalently associated. Upon peroxide binding to Cys52 of subunit 1, the Cys173 of subunit 2 interacts with Cys52 of subunit 1 to complete the antioxidation, generating a disulfide bond between Cys52 and Cys173. Subsequent reduction restores the subunits to the basal state. There are apparently two additional isoforms. One shows a premature truncation after aa 171, while the second shows a deletion of aa 21 - 121. Human Prx-1 shows 96% and 98% amino acid identity to mouse and rat Prx-1, respectively.

PRODUCT SPECIFIC NOTICES

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