

DESCRIPTION

Species Reactivity	Human
Specificity	Detects endogenous human Peroxiredoxin 1 in Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 477609
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Peroxiredoxin 1 Met1-Lys199 Accession # Q06830
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	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 Peroxiredoxin1 (Prx-1, also known as 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. In its inactive state, Prx-1 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 is 96% aa identical to mouse Prx-1.

PRODUCT SPECIFIC NOTICES

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