

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Peroxiredoxin 3 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human Peroxiredoxin 1, 2, 4, or recombinant mouse Peroxiredoxin 3 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 774406
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Peroxiredoxin 3 Met1-Gln256 Accession # P30048
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.

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

Peroxiredoxin 3 (Prx-3/III; also AOP-1, MER5 and thioredoxin-dependent peroxidase reductase) is a ubiquitous, 22-28 kDa mitochondrial antioxidant enzyme that belongs to the 2-Cys class of the TSA/ahpC family of peroxiredoxins. Prx-3 is known to act as either a homodimer, or a decamer, and scavenge reactive oxygen species generated by oxidative stress. The mouse Prx-3 precursor molecule is 257 amino acids (aa) in length. It contains a cleavable N-terminal 63 aa mitochondrial targeting sequence, plus a 194 aa mature enzyme that shows a thioredoxin domain between aa 64-222. There are two catalytic cysteines, one at Cys109 and another at Cys230 of the precursor. Prx-3 undergoes a phosphorylation at Thr147 that reduces its activity. One potential splice form shows a deletion of Arg149, Lys150 and Arg185. Full-length mouse Prx-3 is 86% and 95% aa identical to human and rat Prx-3, respectively.

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