

DESCRIPTION

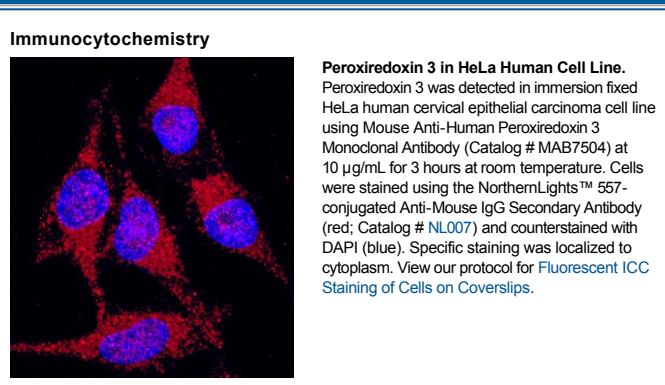
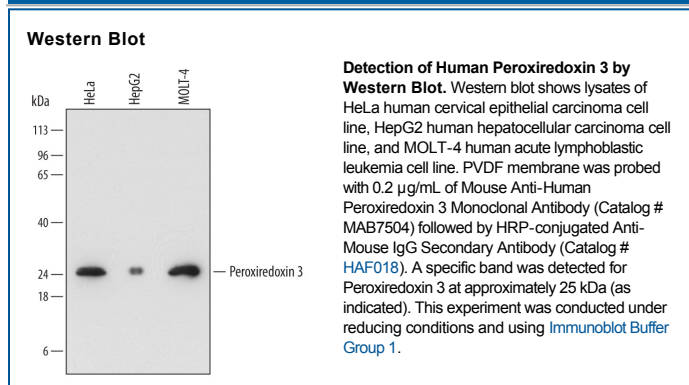
Species Reactivity	Human
Specificity	Detects human Peroxiredoxin 3 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human Peroxiredoxin 1, 2, 4, or recombinant mouse Peroxiredoxin 3 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 774406
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Peroxiredoxin 3 Met1-Gln256 Accession # P30048
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	0.2 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.