

DESCRIPTION

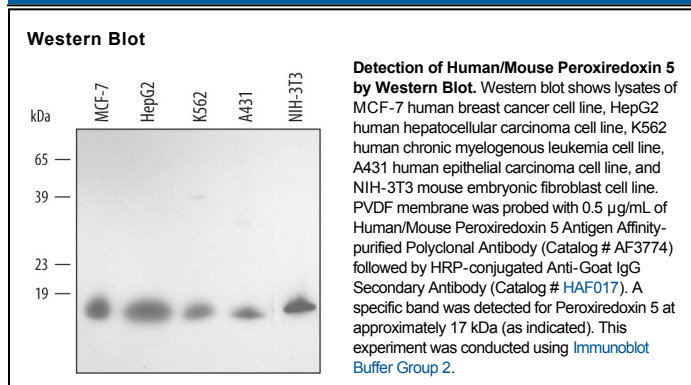
Species Reactivity	Human/Mouse
Specificity	Detects endogenous human and mouse Peroxiredoxin 5 in Western blots. In Western blots, this antibody shows no cross-reactivity with recombinant human Peroxiredoxin 1, 2, 3, or 6.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Peroxiredoxin 5 Met1-Leu214 Accession # P30044
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	0.5 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
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-5 (Prx-5 or PRDX5; also AOEB166 and thioredoxin reductase) is a 22 kDa, widely expressed mitochondrial antioxidant enzyme that belongs to the atypical 2-Cys class of the TSA/ahpC family of peroxiredoxins. The precursor molecule is 214 amino acids (aa) in length. It contains an N-terminal 52 aa mitochondrial targeting (signal) sequence and a 162 aa (17 kDa) mature enzyme that shows a nuclear export signal between aa 58-67, and a peroxisome targeting motif at aa 212-214. There are two catalytic cysteines, one at Cys100 and a second at Cys204 of the precursor. Prx-5 is a monomer that is found in mitochondria, cytosol, nucleus and peroxisomes. It is known to reduce H₂O₂ and alkyl hydroperoxides. Prx5 can undergo cleavage after Ala52, generating two splice forms. One shows a deletion of aa 59-147, while a second shows a deletion of aa 103-146. Mature human Prx-5 is 78% aa identical to mouse Prx-5, with most differences noted over the first 52 amino acids.