

DESCRIPTION

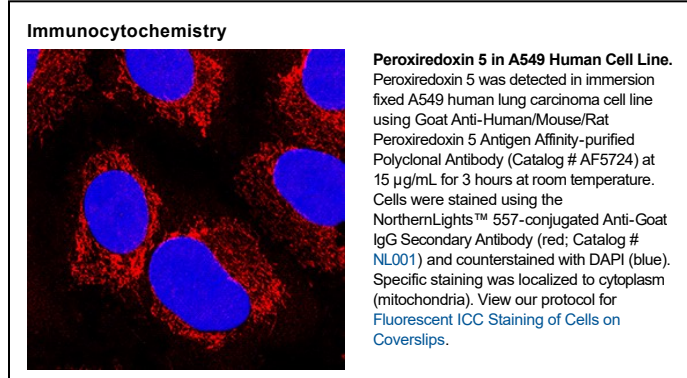
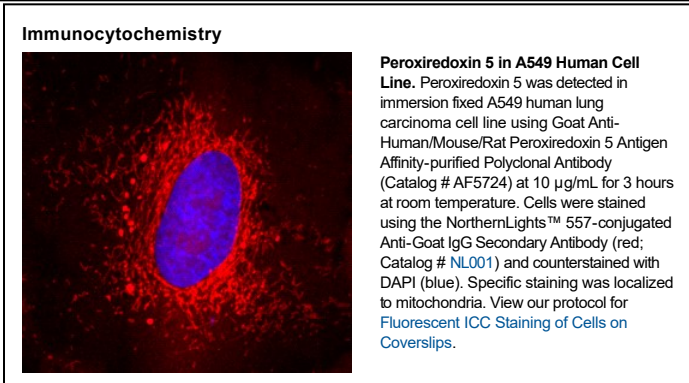
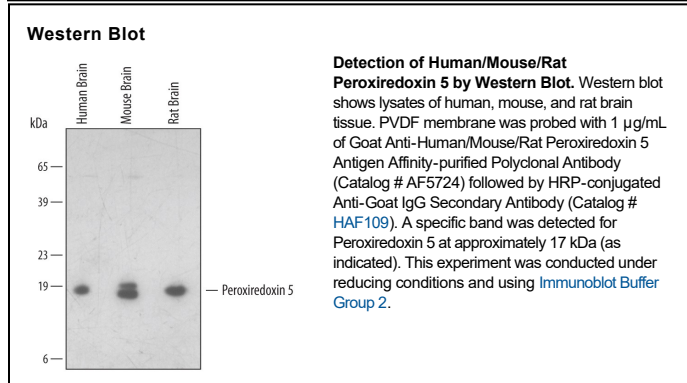
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse and rat Peroxiredoxin 5 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse Peroxiredoxin 5 Met1-Leu210 Accession # P99029
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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	1 µg/mL	See Below
Immunocytochemistry	5-15 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; also known as 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 mouse precursor molecule is 210 amino acids (aa) in length and contains an N-terminal 48 aa mitochondrial targeting (signal) sequence and a 162 aa mature enzyme that shows an NES between aa 54-63, and a peroxisome targeting motif at aa 208-210. There are two catalytic cysteines, one at Cys96, and another at Cys200 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. Two potential splice forms are reported. One is 17 kDa in size and shows an alternative start site at Met49, while a second shows a 19 aa substitution for aa 83-102. Mouse Prx-5 is 78% and 90% aa identical to human and rat Prx-5, respectively.