Human Peroxiredoxin 6 Antibody

Monoclonal Mouse IgG_3 Clone # 477068

Catalog Number: MAB3490

DESCRIPTION

Species Reactivity	Human
Specificity	Detects endogenous human Prx-6 in Western blots. In Western blots, this antibody does not cross-react with rhPrx-1, -2, -3, -4, or -5.
Source	Monoclonal Mouse IgG_3 Clone # 477068
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Peroxiredoxin 6 Met1-Pro224 Accession # P30041
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.

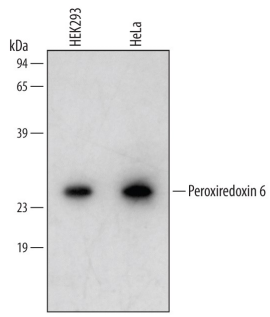
APPLICATIONS

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
Simple Western	5 µg/mL	See Below

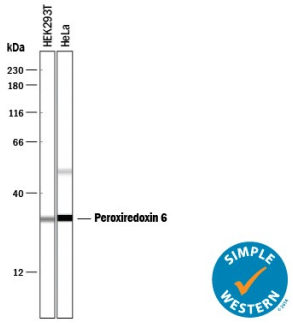
DATA

Western Blot



Detection of Human Peroxiredoxin 6 by Western Blot. Western blot shows lysates of HEK293 human embryonic kidney cell line and HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Human Peroxiredoxin 6 Monoclonal Antibody (Catalog # MAB3490) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Peroxiredoxin 6 at approximately 26 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

Simple Western



Detection of Human Peroxiredoxin 6 by Simple Western™. Simple Western lane view shows lysates of HEK293T human embryonic kidney cell line and HeLa human cervical epithelial carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Peroxiredoxin 6 at approximately 31 kDa (as indicated) using 5 µg/mL of Mouse Anti-Human Peroxiredoxin 6 Monoclonal Antibody (Catalog # MAB3490) . This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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.** ● 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

Human Peroxiredoxin 6 (Prx-6) is a 26 kDa, cytosolic antioxidant enzyme that belongs to the 1-Cys class of the THP/ahpC family of proteins. This protein is 224 amino acids (aa) in length and has one catalytic cysteine at Cys46. Following an attack on peroxide, Cys46 is oxidized to cysteine sulfenic acid and exists in a stable conformation. Reduced, Prx-6 is a homotetramer. When activated, it apparently forms a covalently-associated homodimer. In addition to glutathione peroxidase activity, Prx-6 is also reported to demonstrate phospholipase A2 activity. Thus, Prx-6 likely plays a role in phospholipid turnover. Ser32 in a GWSWG motif is required for its enzymatic activity. Human Prx-6 is 92% and 90% aa identical to rat and mouse Prx-6, respectively.

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