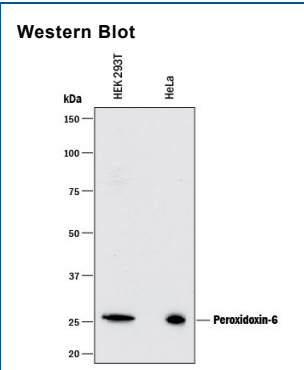
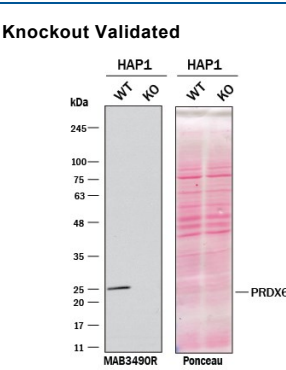


DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human Peroxiredoxin 6 in direct ELISAs and Western blots.
Source	Recombinant Monoclonal Mouse IgG ₁ Clone # 477068R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Peroxiredoxin 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	0.5 μg/mL	See Below
Knockout Validated	Peroxiredoxin 6 is specifically detected in HAP1 cell line, but is not detectable in knockout HAP1 cell line.	

DATA	
<p>Western Blot</p>  <p>Detection of Human Peroxiredoxin 6 by Western Blot. Western blot shows lysates of HEK293T human embryonic kidney cell line and HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 0.5 μg/mL of Mouse Anti-Human Peroxiredoxin 6 Monoclonal Antibody (Catalog # MAB3490R) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Peroxiredoxin 6 at approximately 25 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Knockout Validated</p>  <p>Western Blot Shows Human Peroxiredoxin 6 Specificity Using Knockout Cell Line. Western blot shows lysates of HAP1 human near-haploid cell line and Peroxiredoxin 6 knockout HAP1 cell line (KO). Nitrocellulose membrane was probed with 0.5 μg/mL of Mouse Anti-Human Peroxiredoxin 6 Monoclonal Antibody (Catalog # MAB3490R) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody. A specific band was detected for Peroxiredoxin 6 at approximately 25 kDa (as indicated) in the parental HAP1 cell line, but is not detectable in knockout HAP1 cell line. The Ponceau stained transfer of the blot is shown. This experiment was conducted under reducing conditions. Image, protocol, and testing courtesy of YCharOS Inc. See ycharos.com for additional details.</p>

PREPARATION AND STORAGE	
Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
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

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.