Anti-Peroxiredoxin 2 Antibody [7F2-R]

HA601248

Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human
Applications:	WB
Molecular Wt:	Predicted band size: 22 kDa
Clone number:	7F2-R

Description: The peroxiredoxin (PRX) family comprises six antioxidant proteins, PRX I, II, III, IV, V and VI, which protect cells from reactive oxygen species (ROS) by preventing the metal-catalyzed oxidation of enzymes. The PRX proteins primarily utilize thioredoxin as the electron donor for antioxidation, although they are fairly promiscuous with regard to the hydroperoxide substrate. In addition to protection from ROS, peroxiredoxins are also involved in cell proliferation, differentiation and gene expression. PRX I, II, IV and VI show diffuse cytoplasmic localization, while PRX III and V exhibit distinct mitochondrial localization. The human PRX I gene encodes a protein that is expressed in several tissues, including liver, kidney, testis, lung and nervous system. PRX II is expressed in testis, while PRX III shows expression in lung. PRX I, II and III are overexpressed in breast cancer and may be involved in its development or progression. Upregulated protein levels of PRX I and II in Alzheimer's disease (AD) and Down syndrome (DS) indicate the involvement of PRX I and II in their pathogenesis.

Immunogen: Recombinant full length protein.

Positive control: HEK-293 cell lysate, LNCaP cell lysate, HeLa cell lysate, SH-SY5Y cell lysate, MCF7 cell lysate, HepG2 cell lysate.

Subcellular location: Cytoplasm.

Database links: SwissProt: P32119 Human

Recommended Dilutions:

WB	1:1,000-1:20,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

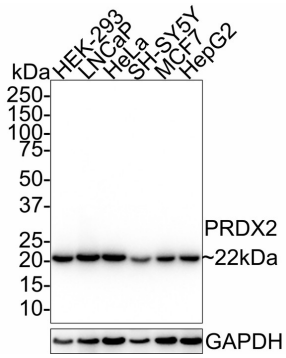

Fig1: Western blot analysis of Peroxiredoxin 2 on different lysates with Mouse anti-Peroxiredoxin 2 antibody (HA601248) at 1/1,000 dilution.

Lane 1: HEK-293 cell lysate
Lane 2: LNCaP cell lysate
Lane 3: HeLa cell lysate
Lane 4: SH-SY5Y cell lysate
Lane 5: MCF7 cell lysate
Lane 6: HepG2 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 22 kDa
Observed band size: 22 kDa

Exposure time: 5 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601248) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

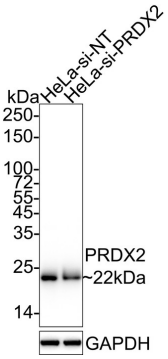

Fig2: Western blot analysis of Peroxiredoxin 2 on different lysates with Mouse anti-Peroxiredoxin 2 antibody (HA601248) at 1/20,000 dilution.

Lane 1: HeLa-si NT cell lysate
Lane 2: HeLa-si Peroxiredoxin 2 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 22 kDa
Observed band size: 22 kDa

Exposure time: 14 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601248) at 1/20,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. Kang S W et al. Mammalian peroxiredoxin isoforms can reduce hydrogen peroxide generated in response to growth factors and tumor necrosis factor-alpha. J Biol Chem 273:6297-6302 (1998).
2. Kamariah N et al. Transition steps in peroxide reduction and a molecular switch for peroxide robustness of prokaryotic peroxiredoxins. Sci Rep 6:37610-37610 (2016).