
Product Name: KD-Validated Peroxiredoxin 4 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVA00907

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 30.5kDa

Antigen Information

Gene Name	PRDX4 Peroxiredoxin 4; AOE37-2; Thioredoxin-Dependent Peroxide Reductase A0372; Thioredoxin-Dependent Peroxiredoxin 4; Thioredoxin Peroxidase A0372; Antioxidant Enzyme AOE372;
Alternative Names	Peroxiredoxin IV; Peroxiredoxin-4; Prx-IV; Epididymis Secretory Sperm Binding Protein Li 97n; Thioredoxin Peroxidase (Antioxidant Enzyme); EC 1.11.1.24; EC 1.11.1.15; HEL-S-97n; AOE372; PRX-4
Gene ID	10549.0
SwissProt ID	Q13162
Immunogen	A synthesized peptide derived from human Peroxiredoxin 4

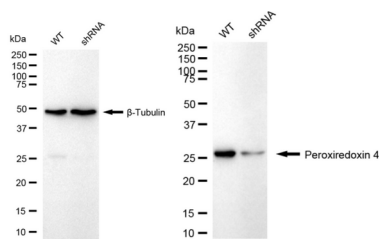
Background

The protein encoded by this gene is an antioxidant enzyme and belongs to the peroxiredoxin family. The protein is localized to the cytoplasm. Peroxidases of the peroxiredoxin family reduce hydrogen peroxide and alkyl hydroperoxides to water and alcohol with the use of reducing equivalents derived from thiol-containing donor molecules. This protein has been found to play a regulatory role in the activation of the transcription factor NF-kappaB. [provided by RefSeq, Jul 2008]

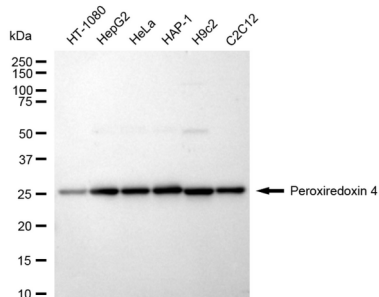
Research Area

Cell Biology

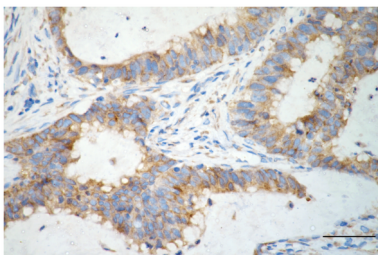
Image Data



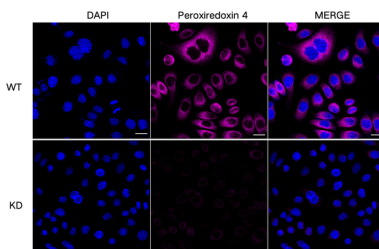
Western blotting analysis using Peroxiredoxin 4 antibody (KVA00907). Peroxiredoxin 4 expression in wild type (WT) and Peroxiredoxin 4 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with Peroxiredoxin 4 antibody (KVA00907, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



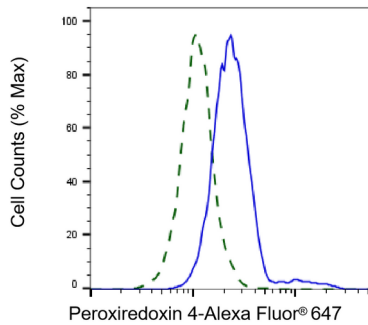
Western blotting analysis using Peroxiredoxin 4 antibody (KVA00907). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Peroxiredoxin 4 antibody (KVA00907, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



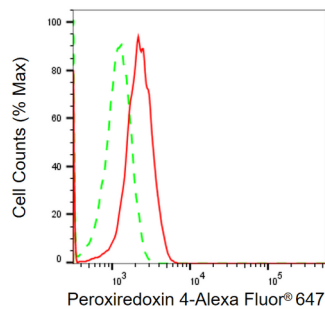
Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using peroxiredoxin 4 antibody (KVA00907, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HeLa cells using Peroxiredoxin 4 antibody (KVA00907, 1:1,000). Top panel: wild-type (WT); Bottom panel: Peroxiredoxin 4 shRNA knockdown (KD). Nuclei were stained blue with DAPI; Peroxiredoxin 4 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Validation of Peroxiredoxin 4 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Peroxiredoxin 4 antibody (KVA00907, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Peroxiredoxin 4 expression in HAP-1 cells using Peroxiredoxin 4 antibody (KVA00907, 1:2,000). Green, isotype control; red, Peroxiredoxin 4.