

Product Name: KD-Validated Peroxiredoxin 3 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb00962

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human
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: 27.7kDa

Antigen Information

Gene Name	PRDX3
Alternative Names	Peroxiredoxin 3; AOP-1; Antioxidant Protein 1; SP-22; MER5; AOP1; Thioredoxin-Dependent Peroxide Reductase, Mitochondrial; Thioredoxin-Dependent Peroxiredoxin 3; Protein MER5 Homolog; Peroxiredoxin III; Prx-III; HBC189; Epididymis Secretory Sperm Binding Protein; Peroxiredoxin-3; EC 1.11.1.24; EC 1.11.1.15; PRO1748; SCAR32; PPPCD
Gene ID	10935.0
SwissProt ID	P30048
Immunogen	A synthesized peptide derived from human Peroxiredoxin 3

Background

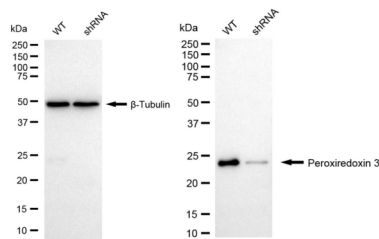
This gene encodes a mitochondrial protein with antioxidant function. The protein is similar to the C22 subunit of Salmonella

typhimurium alkylhydroperoxide reductase, and it can rescue bacterial resistance to alkylhydroperoxide in *E. coli* that lack the C22 subunit. The human and mouse genes are highly conserved, and they map to the regions syntenic between mouse and human chromosomes. Sequence comparisons with recently cloned mammalian homologs suggest that these genes consist of a family that is responsible for the regulation of cellular proliferation, differentiation and antioxidant functions. This family member can protect cells from oxidative stress, and it can promote cell survival in prostate cancer. Alternative splicing of this gene results in multiple transcript variants. Related pseudogenes have been identified on chromosomes 1, 3, 13 and 22. [provided by RefSeq, Oct 2014]

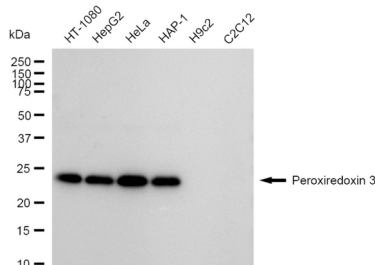
Research Area

Neuroscience,Signal Transduction,Cardiovascular,Cancer,Metabolism

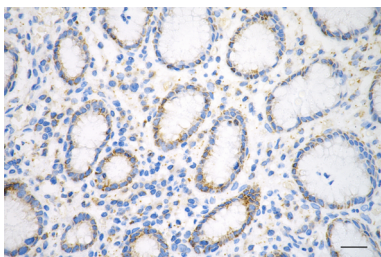
Image Data



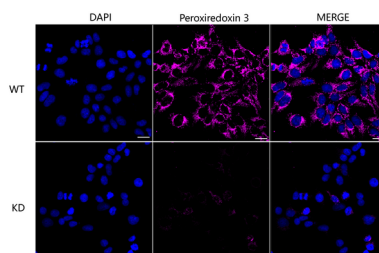
Western blotting analysis using Peroxiredoxin 3 antibody (KVA00962). Peroxiredoxin 3 expression in wild type (WT) and Peroxiredoxin 3 shRNA knockdown (KD) HeLa cells with 20 μ g of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with Peroxiredoxin 3 antibody (KVA00962, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



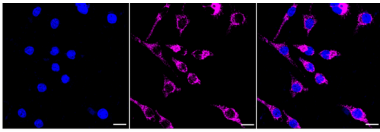
Western blotting analysis using Peroxiredoxin 3 antibody (KVA00962). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Peroxiredoxin 3 antibody (KVA00962, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



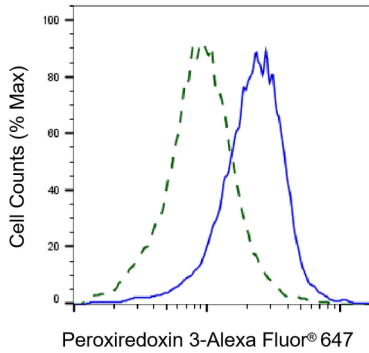
Immunohistochemistry was performed on paraffin-embedded human gastric carcinoma using peroxiredoxin 3 antibody (KVA00962, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40 $\times$ objective). Scale bar: 25 μ m.



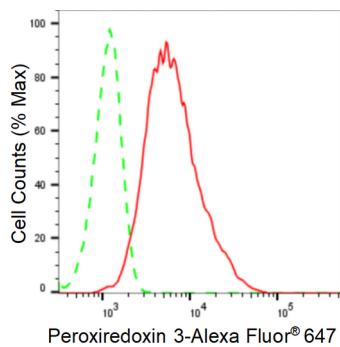
Immunocytochemical staining of HeLa cells using Peroxiredoxin 3 antibody (KVA00962, 1:1,000). Top panel: wild-type (WT); Bottom panel: Peroxiredoxin 3 shRNA knockdown (KD). Nuclei were stained blue with DAPI; Peroxiredoxin 3 was stained magenta with Alexa Fluor[®] 647. Scale bar, 20 μ m.



Immunocytochemical staining of HeLa cells with Peroxiredoxin 3 antibody (KVA00962, 1:1,000). Nuclei were stained blue with DAPI; Peroxiredoxin 3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.



Validation of Peroxiredoxin 3 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Peroxiredoxin 3 antibody (KVA00962, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Peroxiredoxin 3 expression in HeLa cells using Peroxiredoxin 3 antibody (KVA00962, 1:2,000). Green, isotype control; red, Peroxiredoxin 3.