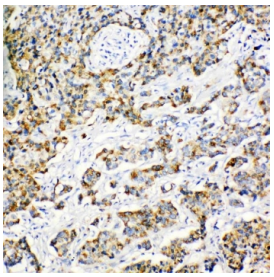
Peroxiredoxin 3 Antibody (R30934)

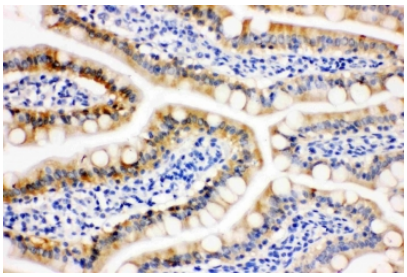
Catalog No.	Formulation	Size
R30934	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

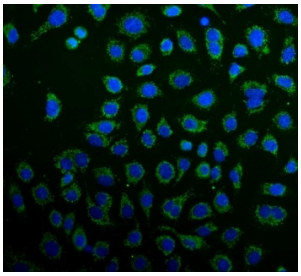
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	P20108
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This Peroxiredoxin 3 antibody is available for research use only.



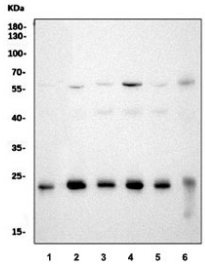
IHC staining of FFPE human breast cancer tissue with Peroxiredoxin 3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



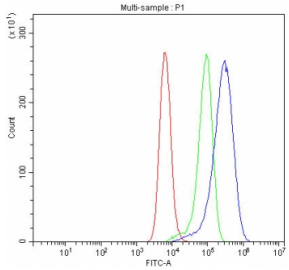
IHC staining of FFPE rat intestine tissue with Peroxiredoxin 3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Immunofluorescent staining of FFPE human A549 cells with Peroxiredoxin 3 antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of 1) human HeLa, 2) human MCF7, 3) rat brain, 4) rat liver, 5) mouse brain and 6) mouse liver tissue lysate with Peroxiredoxin 3 antibody. Predicted molecular weight ~28 kDa.



Flow cytometry testing of fixed and permeabilized human HeLa cells with Peroxiredoxin 3 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Peroxiredoxin 3 antibody.

Description

Peroxiredoxin 3, also known as AOP-1, MER5, SP-22 or PRX3, is localized exclusively in mitochondria. The deduced 256-amino acid human protein shares 86% amino acid sequence similarity with the mouse protein, and significant similarity with both the human proliferation-associated gene A product and the mouse stress-induced peritoneal macrophage protein Msp23. The PRDX3 gene is mapped on 10q26.11. Expression of PRDX3 is induced by MYC and is reduced in c-myc -/- cells. Chromatin immunoprecipitation analysis spanning the entire PRDX3 genomic sequence revealed that MYC binds preferentially to a 930-bp region surrounding exon 1. Results using mitochondria-specific fluorescent probes demonstrated that PRDX3 is essential for maintaining mitochondrial mass and membrane potential in transformed rat and human cells. These data provided evidence that Peroxiredoxin 3 is a MYC target gene that is required to maintain normal mitochondrial function.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Peroxiredoxin 3 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of mouse PRDX3 (TIKPSPTASKEYFEKVHQ) was used as the immunogen

for this Peroxiredoxin 3 antibody (100% rat homology).

Storage

After reconstitution, the Peroxiredoxin 3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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