

Product datasheet

Recombinant human Peroxiredoxin 1/PAG protein ab79945

[1 References](#) [3 Images](#)

Description

Product name	Recombinant human Peroxiredoxin 1/PAG protein
Biological activity	Specific Activity between 800 and 1000 pmol/min/μg. Please enquire as to activity of specific lots. 1.88 μg of Peroxiredoxin 1 was incubated in 50 mM Hepes (pH 7.0) containing 200 μM NADPH, 3 μM thioredoxin, and 1.5 μM thioredoxin reductase. The reaction mixture was incubated at 30C for 5 min, followed by the addition of 0.22 mM H ₂ O ₂ . NADPH oxidation was monitored (fluorescence decrease) for the next 10 min.
Purity	> 90 % SDS-PAGE. Affinity purified.
Expression system	Baculovirus infected insect cells
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human

Specifications

Our **Abpromise guarantee** covers the use of **ab79945** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Western blot Functional Studies SDS-PAGE
Form	Liquid

Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. pH: 8.00 Constituents: 0.0462% (R*,R*)-1,4-Dimercaptobutan-2,3-diol, 0.395% Tris HCl, 0.05% Tween, 50% Glycerol (glycerin, glycerine), 0.58% Sodium chloride
------------------------------	--

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function

Involved in redox regulation of the cell. Reduces peroxides with reducing equivalents provided through the thioredoxin system but not from glutaredoxin. May play an important role in eliminating peroxides generated during metabolism. Might participate in the signaling cascades of growth factors and tumor necrosis factor-alpha by regulating the intracellular concentrations of H₂O₂. Reduces an intramolecular disulfide bond in GDPD5 that gates the ability to GDPD5 to drive postmitotic motor neuron differentiation.

Sequence similarities

Belongs to the ahpC/TSA family.
Contains 1 thioredoxin domain.

Post-translational modifications

Phosphorylated on Thr-90 during the M-phase, which leads to a more than 80% decrease in enzymatic activity.

Cellular localization

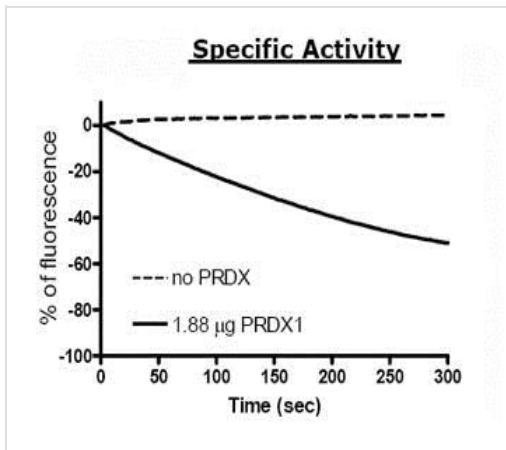
Cytoplasm. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Images



Lane 1: ab79945 on 14% SDS-PAGE, Coomassie staining, 20µg.

Lane 2: Protein marker.



Functional Studies - Recombinant human Peroxiredoxin 1/PAG protein (ab79945)



Western blot - Recombinant human Peroxiredoxin 1/PAG protein (ab79945)

This protein is a homodimer consisting of two subunits with an expected molecular weight of 23kDa.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors