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Datasheet for ABIN7126074

Peroxiredoxin 1 Protein (PRDX1) (full length) (rho-1D4 tag)

Overview

Quantity:	0.5 mg
Target:	Peroxiredoxin 1 (PRDX1)
Protein Characteristics:	full length
Origin:	CHO cells
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Peroxiredoxin 1 protein is labelled with rho-1D4 tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys), Functional Studies (Func)

Product Details

Sequence:	<p>MSSGNAKIGY PAPNFKATAV MPDGQFRDIC LSEYRGKYVV FFFYPLDFTF VCPTEIIAFS DRAEEFKKLN CQVIGASVDS HFCHLAWINT PPKQGGLGPM NIPLVSDPKR TIAQDYGVLK ADEGISFRGL FIIDDKGILR QITINDLPVG RSVDEILRLV QAFQFTDKHG EVCPAGWKPG SDTIKPDVQK SKEYFSKQK</p> <p>Sequence without tag. The location of the tag depends on protein. You may also submit your preference when ordering.</p>
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Characteristics:	<ul style="list-style-type: none">• Made in Germany - from design to production - by highly experienced protein experts.• CHO Peroxiredoxin-1 (Thioredoxin peroxidase 2) (TPX-2) (Thioredoxin-dependent peroxiredoxin 1) Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.• State-of-the-art algorithm used for plasmid design (Gene synthesis). <p>This protein is a custom-made protein and will be made for the first time for your order. This</p>
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Product Details

protein will be produced on the basis of on a Custom Service Project. We will make sure that every step in the production is successful from the design of the expression plasmid to the expression and purification of the final protein. Our experts in the lab will ensure that you receive a correctly folded protein.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Three step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none">1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Endotoxins have not been removed. Please contact us if you require an endotoxin-free version of this product.
Grade:	Crystallography grade
Biological Activity Comment:	Protein has not been tested for activity yet.

Target Details

Target:	Peroxiredoxin 1 (PRDX1)
Alternative Name:	Peroxiredoxin-1 (Thioredoxin peroxidase 2) (TPX-2) (PRDX1 Products)
Background:	Thiol-specific peroxidase that catalyzes the reduction of hydrogen peroxide and organic hydroperoxides to water and alcohols, respectively. Plays a role in cell protection against oxidative stress by detoxifying peroxides and as sensor of hydrogen peroxide-mediated signaling events. Might participate in the signaling cascades of growth factors and tumor necrosis factor-alpha by regulating the intracellular concentrations of H ₂ O ₂ (By similarity). Reduces an intramolecular disulfide bond in GDPD5 that gates the ability to GDPD5 to drive

Target Details

postmitotic motor neuron differentiation (By similarity). {ECO:0000250|UniProtKB:P0CB50, ECO:0000250|UniProtKB:Q06830}.

UniProt: [Q9JKY1](#)

Pathways: [p53 Signaling](#), [EGFR Signaling Pathway](#), [CXCR4-mediated Signaling Events](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 150 mM NaCL, 20 mM NaH₂PO₄ pH 7.4, 10 % glycerol. Note: Isoelectric point of protein taken into account regarding pH .

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)