

Human Peroxiredoxin 4 (PRDX4) ELISA Kit

Catalog No: #EK8332



Package Size: #EK8332-1 48T #EK8332-2 96T

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Description

Product Name	Human Peroxiredoxin 4 (PRDX4) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Human (Homo sapiens)
Other Names	AOE37-2; PRX-4; thioredoxin peroxidase (antioxidant enzyme)
Accession No.	Q13162
Uniprot	Q13162
GeneID	10549;
Storage	<p>The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition.</p> <p>The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).</p>

Application Details

Detect Range:31.25-2000 pg/mL

Sensitivity:12.5 pg/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate PRDX4 in samples. An antibody specific for PRDX4 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyPRDX4 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for PRDX4 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of PRDX4 bound in the initial step. The color development is stopped and the intensity of the color is measured.

Product Overview:Peroxiredoxin-4 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.Sequence analysis predicted that the 271-amino acid protein, 70% identical to a yeast thiol-specific antioxidant, contains a signal peptide and 2 peroxide catalysis cysteine motifs conserved in all human peroxiredoxins. Functional analysis showed that PRDX4 protects glutamine synthetase (GLUL) from inactivation.

Note: This product is for in vitro research use only