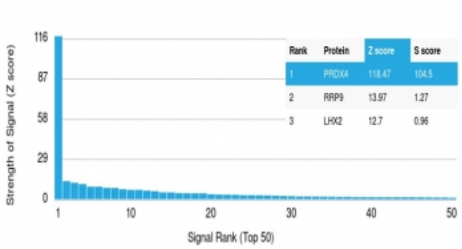
# Peroxiredoxin 4 Antibody / PRDX4 [clone CPTC-PRDX4-1] (V5648)

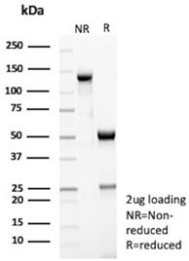
| Catalog No. | Formulation | Size |
|---|---|---|
| V5648-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 ug |
| V5648-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 20 ug |
| V5648SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

## Bulk quote request

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG2a, kappa |
| **Clone Name** | CPTC-PRDX4-1 |
| **Purity** | Protein G affinity |
| **UniProt** | Q13162 |
| **Localization** | Cytoplasm |
| **Applications** | ELISA : |
| **Limitations** | This Peroxiredoxin 4 antibody is available for research use only. |




Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using Peroxiredoxin 4 antibody (clone CPTC-PRDX4-1). These results demonstrate the foremost specificity of the CPTC-PRDX4-1 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.




SDS-PAGE analysis of purified, BSA-free Peroxiredoxin 4 antibody (clone CPTC-PRDX4-1) as confirmation of integrity and purity.

## Description

The peroxiredoxin (PRX) family comprises six antioxidant proteins, PRX I, II, III, IV, V and VI, which protect cells from reactive oxygen species (ROS) by preventing the metal-catalyzed oxidation of enzymes. The PRX proteins primarily utilize thioredoxin as the electron donor for antioxidation, although they are fairly promiscuous with regard to the hydroperoxide substrate. In addition to protection from ROS, peroxiredoxins are also involved in cell proliferation, differentiation and gene expression. PRX I, II, IV and VI show diffuse cytoplasmic localization, while PRX III and V exhibit distinct mitochondrial localization. The human PRX IV gene is expressed in many tissues. It exists as a precursor protein, which is only detected in testis, and aprocessed secreted form. PRX IV is highly expressed in lung cancer and is necessary for the promotion of lung cancer in vitro. Studies have demonstrated that PRX IV positive expression is significantly correlated with recurrences and shorter disease-free survival in patients with early-stage lung squamous cell carcinoma, and therefore can be used as a prognostic marker in lung squamous cell carcinoma.

## Application Notes

Optimal dilution of the Peroxiredoxin 4 antibody should be determined by the researcher.

## Immunogen

A recombinant full-length human PRDX4 protein was used as the immunogen for the Peroxiredoxin 4 antibody.

## Storage

Aliquot the Peroxiredoxin 4 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Ordering: Phone: 858.663.9055 | Fax: 1.267.821.0800 | Email: info@nsjbio.com