

# Immunotag™ PRX I Polyclonal Antibody

| Antibody Specification |                                                                                                                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catalog No.            | ITM3349                                                                                                                                                                                                     |
| Product Description    | Immunotag™ PRX I Polyclonal Antibody                                                                                                                                                                        |
| Size                   | 50 µg, 100 µg                                                                                                                                                                                               |
| Conjugation            | HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647                                                                               |
| IMPORTANT NOTE         | This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.                                          |
| Target Protein         | PRX I                                                                                                                                                                                                       |
| Clonality              | Polyclonal                                                                                                                                                                                                  |
| Storage/Stability      | -20°C/1 year                                                                                                                                                                                                |
| Application            | WB,IHC-p                                                                                                                                                                                                    |
| Recommended Dilution   | WB: 1:1000-2000 IHC: 1:200-500                                                                                                                                                                              |
| Concentration          | 1 mg/ml                                                                                                                                                                                                     |
| Reactive Species       | Human,Mouse,Rat                                                                                                                                                                                             |
| Host Species           | Rabbit                                                                                                                                                                                                      |
| Immunogen              | Recombinant Protein of Peroxiredoxin-1                                                                                                                                                                      |
| Specificity            | The antibody detects endogenous PRX I protein.                                                                                                                                                              |
| Purification           | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen                                                                                        |
| Form                   | PBS, pH 7.4, containing 0.02% sodium azide as Preservative and 50% Glycerol.                                                                                                                                |
| Gene Name              | PRDX1                                                                                                                                                                                                       |
| Accession No.          | Q06830 P35700 Q63716                                                                                                                                                                                        |
| Alternate Names        | PRDX1; PAGA; PAGB; TDPX2; Peroxiredoxin-1; Natural killer cell-enhancing factor A; NKEF-A; Proliferation-associated gene protein; PAG; Thioredoxin peroxidase 2; Thioredoxin-dependent peroxide reductase 2 |

## Antibody Specification

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description              | <p>peroxiredoxin 1 (PRDX1) Homo sapiens This gene encodes a member of the peroxiredoxin family of antioxidant enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides. The encoded protein may play an antioxidant protective role in cells, and may contribute to the antiviral activity of CD8(+) T-cells. This protein may have a proliferative effect and play a role in cancer development or progression. Four transcript variants encoding the same protein have been identified for this gene. [provided by RefSeq, Jan 2011],</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Protein Expression       | Brain,Cajal-Retzius cell,Fetal brain cortex,Urinary bladder,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Subcellular Localization | extracellular space,cell,nucleus,cytoplasm,mitochondrion,cytosol,cell-cell adherens junction,extracellular matrix,melanosome,myelin sheath,extracellular exosome,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Protein Function         | <p>catalytic activity: <math>2 R'-SH + ROOH = R'-S-S-R' + H(2)O + ROH</math>.,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 <math>H(2)O(2)</math>.,induction:Constitutively expressed in most human cells; is induced to higher levels upon serum stimulation in untransformed and transformed cells.,miscellaneous:Inactivated upon oxidative stress by overoxidation of Cys-52 to Cys-SO(2)H and Cys-SO(3)H. Cys-SO(2)H is retroreduced to Cys-SOH after removal of <math>H(2)O(2)</math>, while Cys-SO(3)H may be irreversibly oxidized.,miscellaneous:The active site is the redox-active Cys-52 oxidized to Cys-SOH. Cys-SOH rapidly reacts with Cys-173-SH of the other subunit to form an intermolecular disulfide with a concomitant homodimer formation. The enzyme may be subsequently regenerated by reduction of the disulfide by thioredoxin.,PTM:Phosphorylated on Thr-90 during the M-phase, which leads to a more than 80% decrease in enzymatic activity.,similarity:Belongs to the ahpC/TSA family.,similarity:Contains 1 thioredoxin domain.,subcellular location:Identified by mass spectrometry in melanosome fractions from stage I to stage IV.,subunit:Homodimer; disulfide-linked, upon oxidation (By similarity). May form heterodimers with AOP2.,</p> |
| Usage                    | For Research Use Only! Not for diagnostic or therapeutic procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |