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# PRDX6 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2927b

## Product Information

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| **Application** | WB, IHC-P, FC, E |
| **Primary Accession** | P30041 |
| **Other Accession** | O35244, Q9TSX9, O08709, Q2PFL9, Q5ZJF4, O77834 |
| **Reactivity** | Human |
| **Predicted** | Bovine, Chicken, Monkey, Mouse, Pig, Rat, Canine, Rabbit |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB20894 |
| **Calculated MW** | 25035 |
| **Antigen Region** | 197-224 |

## Additional Information

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| **Gene ID** | 9588 |
| **Other Names** | Peroxiredoxin-6, 1-Cys peroxiredoxin, 1-Cys PRX, 24 kDa protein, Acidic calcium-independent phospholipase A2, aiPLA2, 311-, Antioxidant protein 2, Liver 2D page spot 40, Non-selenium glutathione peroxidase, NSGPx, Red blood cells page spot 12, PRDX6, AOP2, KIAA0106 |
| **Target/Specificity** | This PRDX6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 197-224 amino acids from the C-terminal region of human PRDX6. |
| **Dilution** | WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | PRDX6 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | PRDX6 |

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| **Synonyms** | AOP2, KIAA0106 |
| **Function** | Thiol-specific peroxidase that catalyzes the reduction of hydrogen peroxide and organic hydroperoxides to water and alcohols, respectively (PubMed:10893423, PubMed:9497358). Can reduce H(2)O(2) and short chain organic, fatty acid, and phospholipid hydroperoxides (PubMed:10893423). Also has phospholipase activity, can therefore either reduce the oxidized sn-2 fatty acyl group of phospholipids (peroxidase activity) or hydrolyze the sn-2 ester bond of phospholipids (phospholipase activity) (PubMed:10893423, PubMed:26830860). These activities are dependent on binding to phospholipids at acidic pH and to oxidized phospholipds at cytosolic pH (PubMed:10893423). Plays a role in cell protection against oxidative stress by detoxifying peroxides and in phospholipid homeostasis (PubMed:10893423). Exhibits acyl-CoA-dependent lysophospholipid acyltransferase which mediates the conversion of lysophosphatidylcholine (1-acyl-sn-glycero-3-phosphocholine or LPC) into phosphatidylcholine (1,2-diacyl-sn-glycero-3-phosphocholine or PC) (PubMed:26830860). Shows a clear preference for LPC as the lysophospholipid and for palmitoyl CoA as the fatty acyl substrate (PubMed:26830860). |
| **Cellular Location** | Cytoplasm. Lysosome {ECO:0000250\|UniProtKB:O35244}. Note=Also found in lung secretory organelles (lamellar bodies). {ECO:0000250\|UniProtKB:O35244} |

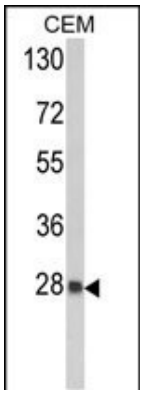
## Background

PRDX6is a member of the thiol-specific antioxidant protein family. This protein is a bifunctional enzyme with two distinct active sites. It is involved in redox regulation of the cell; it can reduce H(2)O(2) and short chain organic, fatty acid, and phospholipid hydroperoxides. It may play a role in the regulation of phospholipid turnover as well as in protection against oxidative injury.

## References

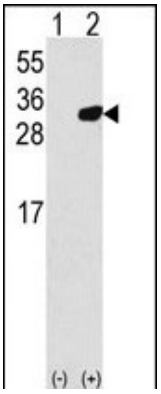
Sorokina,E.M., et.al., Am. J. Physiol. Lung Cell Mol. Physiol. 297 (5), L871-L880 (2009)
Manevich,Y., et.al., Arch. Biochem. Biophys. 485 (2), 139-149 (2009)

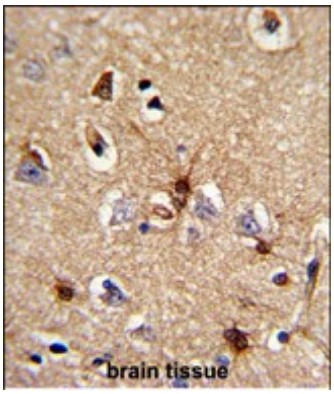
## Images



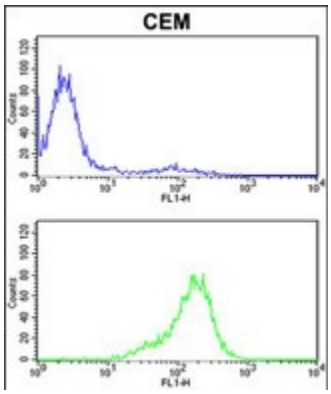

Western blot analysis of PRDX6 Antibody (C-term) (Cat. #AP2927b) in CEM cell line lysates (35ug/lane). PRDX6 (arrow) was detected using the purified Pab.

Western blot analysis of PRDX6 (arrow) using rabbit polyclonal PRDX6 Antibody (C-term) (RB20894). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PRDX6 gene (Lane 2) .




Formalin-fixed and paraffin-embedded human brain tissue reacted with PRDX6 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.




PRDX6 Antibody (C-term) (Cat. #AP2927b) flow cytometric analysis of CEM cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.