

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human/Mouse/Rat                                                                                                                                                                                                                                                             |
| <b>Specificity</b>        | Detects endogenous human, mouse, and rat Peroxiredoxin 6 on in Western blots. In Western blots, this antibody does not cross-react with recombinant human Peroxiredoxin 1, 2, 3, or 5.                                                                                      |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Peroxiredoxin 6<br>Met1-Pro224<br>Accession # P30041                                                                                                                                                                              |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                           |                                                                        |
|---------------------------|------------------------------------------------------------------------|
| <b>Knockout Validated</b> | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>       | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Human peroxiredoxin-6 (Prx-6) is a 26 kDa, cytosolic antioxidant enzyme that belongs to the 1-Cys class of the THP/ahpC family of proteins. The molecule is 224 amino acids (aa) in length and has but one catalytic cysteine at Cys46. Following an attack on peroxide, Cys46 is oxidized to cysteine sulfenic acid and exists in a stable conformation. Reduced, Prx-6 is a homotetramer. When activated, it apparently forms a covalently-associated homodimer. In addition to glutathione peroxidase activity, Prx-6 is also reported to demonstrate phospholipase A<sub>2</sub> activity. Thus, Prx-6 likely plays a role in phospholipid turnover. The enzyme effect is a function of Ser32 in a GWSWG motif. Human Prx-6 is 93%, 92%, 90%, and 94% aa identical to porcine, rat, mouse, and canine Prx-6, respectively.

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