## PRDX1 Protein, Mouse (His)



## DESCRIPTION

Background
PRDX1, a thiol-specific peroxidase, functions as a catalyst for the reduction of hydrogen peroxide and organic hydroperoxides, converting them into water and alcohols, respectively. Its pivotal role in cell protection against oxidative stress involves detoxifying peroxides and acting as a sensor for hydrogen peroxide-mediated signaling events. Additionally, PRDX1 may contribute to the signaling cascades initiated by growth factors and tumor necrosis factor-alpha, exerting control over intracellular $\mathrm{H}(2) \mathrm{O}(2)$ concentrations. Notably, PRDX1 exhibits the ability to reduce an intramolecular disulfide bond in GDPD5, thereby modulating GDPD5's capacity to drive postmitotic motor neuron differentiation. These diverse functions underscore the versatile and intricate regulatory roles of PRDX1 in cellular processes associated with redox signaling and differentiation.

Caution: Product has not been fully validated for medical applications. For research use only.
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