



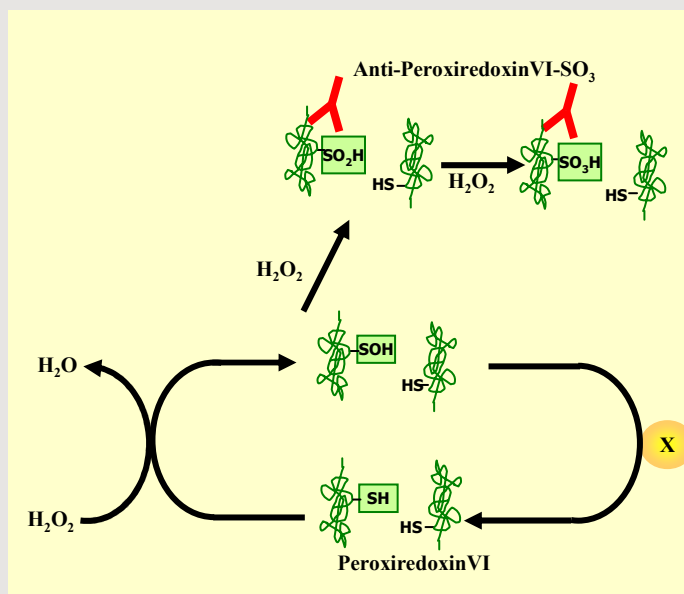
## Anti-PeroxiredoxinVI-SO<sub>3</sub>

**Background :** Peroxiredoxin VI (Prx VI, 1-Cys Prx) is a member of Peroxiredoxin Family, an antioxidant enzyme that detoxifies reactive oxygen species and has a cysteine at their active site. Six isoforms (Prx I to VI) of Prx exist in all eukaryotic cells. These isoforms are classified into three subgroups (2-Cys, atypical 2-Cys, and 1-Cys). Prx VI modulates various receptor-signaling pathways and protects cells from cell death induced by oxidative stress. The active site cysteine(Cys<sup>47</sup>) is oxidized to cysteine sulfinic acid(Cys<sup>47</sup>-SOH) by H<sub>2</sub>O<sub>2</sub>. However, the resulting Cys<sup>47</sup>-SOH does not form a disulfide bond because of unavailability of another Cys-SH nearby. It can be reduced by nonphysiological thiols such as DDT but is not transformed by Thioredoxin/Thioredoxin Reductase or GSH. Occasionally, the sulfinic intermediate is hyperoxidized to sulfinic or sulfonic acid, resulting in inactivation of peroxidase activity.

**Immunogen :** Sulfonylated peptide(KLH coupled) corresponding to the active site sequence common to mammalian Prx VI

**Host:** Rabbit

**Composition :** PBS containing 50% glycerol



### Species cross reactivity

Human  
+

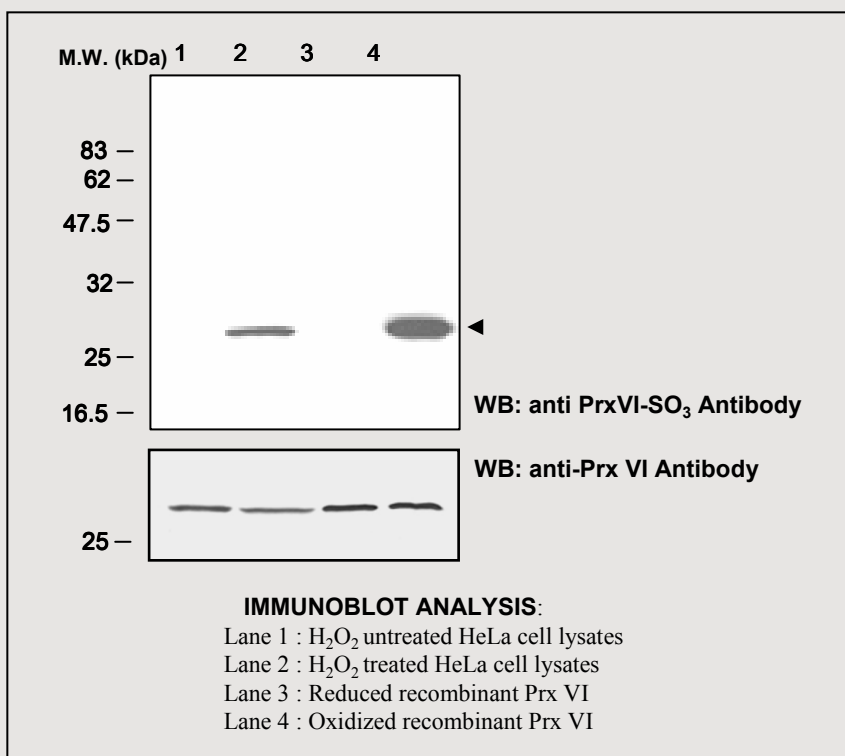
Mouse  
NT

Rat  
NT

**Size :** 100ul

**Specificity:** sulfinic and sulfonic form of PrxVI

**Storage :** Store for 1 year at -20 °C from date of shipment



### Applications :

Western blotting (1:2000)

### Background Reference :

- (1) Chae, H.Z., et al (1994) *Proc.Natl. Acad. Sci. USA* **91**:7017-7021
- (2) Choi, H.J. et al (1998) *Nat. Struct. Biol* **5**:400-406
- (3) Fisher, A.B., et al (1999) *J. Biol. Chem.* **274**:21326-21334
- (4) Kang, S.W. et al (1998) *J. Biol. Chem.* **273**:6303-6311
- (5) Seo, M.S., (2000) *J.Biol. Chem.* **275**:20346-20354

FOR RESEARCH PURPOSE ONLY  
 NOT FOR DIAGNOSTIC OR THERAPEUTIC USE

Page 2 of 2