
Human Peroxiredoxin 2 ELISA Kit

产品编号: bsk11163

种属: Human

线性范围: 781.25 - 50000 pg/mL

应用范围: S/P/CC

检测限: 390 pg/mL

适用样品基质: cell culture supernates, serum, and plasma.

保存条件: Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles (Shipped with wet ice.).

产品介绍: Peroxiredoxin (Prx) is an antioxidant enzyme detoxifying reactive oxygen species and has a cysteine at the active site. Prx enzymes modulate various receptor signaling pathways and protect cells from oxidatively induced death. Peroxiredoxin 1 to 4 have two conserved Cys residues corresponding to Cys51 and Cys172 of mammalian Peroxiredoxin 1. The active site cysteine(Cys51) is oxidized to cysteine sulfenic acid(Cys51-SOH) when a peroxide is reduced. Because Cys51-SOH is unstable, it forms a disulfide with Cys172-SH which comes from the other subunit of the homodimer. The disulfide is then reduced back to the Prx active thiol form by the thioredoxin-thioredoxin reductase system. However, the formation of the disulfide is a slow process. Thus under oxidative stress conditions, the sulfenic intermediate(Cys51-SOH) can be easily over oxidized to cysteine sulfinic acid(Cys-SO₂H) or cysteine sulfonic acid(Cys-SO₃H) before it is able to form a disulfide. Recent studies suggest that over oxidized Prx can be reduced back to the active form during recovery after oxidative stress.