

32-2728: PRDX3 Recombinant Protein

Alternative Name : AOP1, MER5, AOP-1, SP-22, PRO1748, MGC24293, MGC104387, PRDX3, Thioredoxin-dependent peroxide reductase mitochondrial, Peroxiredoxin-3, PRX III, Antioxidant protein 1, Protein MER5 homolog, HBC189.

Description

Source : Escherichia Coli. PRDX3 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 195 amino acids (63-256 a.a.) and having a molecular mass of 21.5 kDa. The PRDX3 is purified by proprietary chromatographic techniques. PRDX3 is part of the peroxiredoxin family of antioxidant enzymes, that reduces hydrogen peroxide and alkyl hydroperoxides. PRDX3 is particularly located in the mitochondria and involved in the regulation of cellular redox status by serving as a primary line of defense against H₂O₂ produced during respiration. PRDX3 is a significant regulator of the abundance of mitochondrial H₂O₂, which itself promotes apoptosis in cooperation with other mediators of apoptotic signaling. PRDX3 mitochondrial protein is significantly decreased in Alzheimer Disease and Down Syndrome.

Product Info

Amount : 20 µg
Purification : Greater than 95.0% as determined by SDS-PAGE.
Content : The PRDX3 solution contains 20mM Tris-HCl pH-8, & 10% glycerol.
Storage condition : PRDX3 although stable 4°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Amino Acid : MPAVTQHAPY FKGTAVVNGE FKDLSLDDFK GKYLVLFFYP LDFTFVCPT EIVAFSDKANE FHDVNCEVVA VSVDSHFSL AWINTPRKNG GLGHMNIALL SDLTKQISRD YGVLLGSG LALRGLFIIDP NGVIKHL SVN DLPVGRSVEE TLRLVKAFQY VETHGEVCPA NWT PDSPTIK PSPAASKEYF QKVNQ.

Application Note

The specific activity was found to be approximately 82-83 pmole/min/µg. The enzymatic activity was confirmed by measuring the remaining peroxide after incubation of PRDX3 and peroxide for 20 min at room temperature. Specific activity is defined as the amount of hydroperoxide that 1 µg of enzyme can reduce at 25°C for 1 minute.