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Product datasheet for AR09187PU-N

Peroxiredoxin-2 / PRDX2 (1-198) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Peroxiredoxin-2 / PRDX2 (1-198) human recombinant protein, 0.1 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MASGNARIGK PAPDFKATAV VDGAFKEVKL SDYKGKYVVL FFYPLDFTFV CPTEIIAFSN RAEDFRKLGC EVLGVSVDSQ FTHLAWINTP RKEGGLGPLN IPLLADVTRR LSEDYGVLKT DEGIAYRGLF IIDGKGVLRQ ITVNDLPVGR SVDEALRLVQ AFQYTDEHGE VCPAGWKPGS DTIKPNVDDS KEYFSKHN
Predicted MW:	21.8 kDa
Concentration:	lot specific
Purity:	>90% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol
Bioactivity:	Specific: Approximately 200-230 pmole/min/µg. Enzymatic activity was confirmed by measuring the remaining peroxide after incubation of PRDX2 and peroxide for 20 min at room temperature. Specific activity is defined as the amount of hydroperoxide that 1ug of enzyme can reduce at 25°C for 1 minute.
Endotoxin:	< 1 EU per 1ug of protein (determined by LAL method)
Preparation:	Liquid purified protein
Applications:	Protocol: **Activity Assay:** 1. Prepare a 50ul reaction mix into a suitable container : The final concentrations are 1mM DTT, 0.03X PBS, 0.5% glycerol. 2. Add 5 ul of recombinant PRDX2 solution with various concentrations (0.25ug, 0.5ug) in 45 ul reaction buffer. 3. Incubate at 25°C for 2 minutes. 4. Add 5ul of 5 mM H2O2 as a substrate and incubate the mixture for 20 min. 5. Add 20ul of 26 % trichloroacetic acid (TCA) to stop the reaction. 6. Add 30ul of Formation solution (10mM Ferrous ammonium sulfate (Fe(II)(NH4)2(SO4)2), 2.5M KSCN) 7. Record the increase in A475nm.

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Protein Description:	Recombinant human Peroxiredoxin 2 protein was expressed in E.coli and purified by using conventional chromatography.
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	NP_005800
Locus ID:	7001
UniProt ID:	P32119, V9HW12
Cytogenetics:	19p13.13
Synonyms:	HEL-S-2a; NKEF-B; NKEFB; PRP; PRX2; PRXII; PTX1; TDPX1; TPX1; TSA
Summary:	This gene encodes a member of the peroxiredoxin family of antioxidant enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides. The encoded protein plays an antioxidant protective role in cells, and it may contribute to the antiviral activity of CD8(+) T-cells. The crystal structure of this protein has been resolved to 2.7 angstroms. This protein prevents hemolytic anemia from oxidative stress by stabilizing hemoglobin, thus making this gene a therapeutic target for patients with hemolytic anemia. This protein may have a proliferative effect and play a role in cancer development or progression. Related pseudogenes have been identified on chromosomes 5, 6, 10 and 13. [provided by RefSeq, Mar 2013]
Protein Families:	Druggable Genome

Product images: