

Product datasheet for **AR09412PU-N**

Superoxide dismutase 2 / SOD2 (25-222, His-tag) Human Protein

Product data:

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| Product Type: | Recombinant Proteins |
| Description: | Superoxide dismutase 2 / SOD2 (25-222, His-tag) human recombinant protein, 0.1 mg |
| Species: | Human |
| Expression Host: | E. coli |
| Expression cDNA Clone or AA Sequence: | <u>MGSSHHHHHH</u> <u>SSGLVPRGSH</u> <u>MKHSLPDLPY</u> DYGALEPHIN AQIMQLHHSK HHAAYVNNLN VTEEKYQEAL AKGDVTAQIA LQPALKFNGG GHINHSIFWT NLSPNGGGEP KGELLEAIKR DFGSFDKFKE KLTAASVG VQ GSGWGWLGFN KERGH LQIAA CPNQDPLQGT TGLIPLLID VWEHAYYLQY KNVRPDYLKA IWNVINWENV TERYMACKK |
| Tag: | His-tag |
| Predicted MW: | 24.4 kDa |
| Concentration: | lot specific |
| Purity: | >95% by SDS - PAGE |
| Buffer: | Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 20% glycerol |
| Bioactivity: | Biological: Specific activity is > 1,000 units/mg, in which one unit will inhibit the rate of reduction of cytochrome c by 50% in a coupled system, using xanthine and Xanthine oxidase at pH 7.5 at 25°C. |
| Preparation: | Liquid purified protein |
| Applications: | Protocol: Activity Assay 1. Prepare a 180 µl assay buffer into a suitable container and pre-chill on ice before use: The concentrations are 54 mM Potassium Phosphate, 5.5 mM Ethylenediaminetetraacetic acid, 66 mM Cytochrom-C, 0.9 mM Xanthine, 0.01 units Xanthine oxidase. 2. Equilibrate to 25°C and monitor at A550nm until the value is constant using a spectrophotometer. 3. Add 20 µl of recombinant SOD2 protein to 50 µg/ml in assay buffer. 4. Mix by inversion and record the increase at A550nm for 5 minutes. |
| Protein Description: | Recombinant human SOD2 protein, fused to His-tag, was expressed in <i>E. coli</i> and purified by using conventional chromatography techniques. |



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| 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_000627 |
| Locus ID: | 6648 |
| UniProt ID: | P04179 , A0A384NL29 |
| Cytogenetics: | 6q25.3 |
| Synonyms: | GClnc1; IPO-B; IPOB; Mn-SOD; MNSOD; MVCD6 |
| Summary: | This gene is a member of the iron/manganese superoxide dismutase family. It encodes a mitochondrial protein that forms a homotetramer and binds one manganese ion per subunit. This protein binds to the superoxide byproducts of oxidative phosphorylation and converts them to hydrogen peroxide and diatomic oxygen. Mutations in this gene have been associated with idiopathic cardiomyopathy (IDC), premature aging, sporadic motor neuron disease, and cancer. Alternative splicing of this gene results in multiple transcript variants. A related pseudogene has been identified on chromosome 1. [provided by RefSeq, Apr 2016] |
| Protein Families: | Druggable Genome, Transcription Factors |
| Protein Pathways: | Huntington's disease |

Product images: