

Active Recombinant Human Sulfite oxidase Mo Centre Domain/SUOX

Cat. No. SUOX-191H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Sulfite oxidase comprises the recombinant molybdenum C-terminal domain of Homo sapiens, purified from a TP1000 Escherichia coli strain.
Species	Human
Source	E.coli
Description	Sulfite oxidase (EC 1.8.3.1) is a homodimeric protein localized in the intermembrane space of mitochondria of all eukaryotic organisms. Each subunit contains an N-terminal domain, with a heme cofactor, and a C-terminal domain, with a molybdopterin cofactor (MoVI). The enzyme catalyzes the oxidation of sulfite to sulfate, which takes place at the molybdenum centre, and is the final reaction in the oxidative degradation of the sulfur amino acids cysteine and methionine.
Sequence	MGSSHHHHHSSGLVPRGSHMVAPT VETSDPYADDPVRHPALKVNSQRPFNAEPP PELLTENYITPNPIFFTRNHL PVPNLDPD TYRLHVVGAPGGQSLSLSLDDLHNFPRIE ITVTLQCAGNRRSEMTQVKEVKGLEWRTGAISTARWAGARLCDVLAQAGHQLCETE AHVCFEGLDSDPTGTAYGASIP LARAAMDPEAEVLLAYEMNGQPLPRDHGFPVRV VPGVVGARHVKWLGRVSVQPEESYSHWQRRDYKGFSPSVDWETVDFDSAPSIQE LPVQSAITEPRDGETVESGEVTIKGYAWSGGGRAVIRVDVSLDGGLTWQVAKLDGE EQRPRKAWAWRLWQLKAPVPAGQKELNIVCKAVDDGYNVQPD TVAPIWNLRGVLS NAWHRVHVYVSP

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Unit definition	One unit of sulfiteoxidase activity is defined as the amount of enzyme required to oxidize 1.0μmol of sulfite to sulfate, per min, in a coupled assay where the hydrogenperoxide formed in the first reaction is reduced by an NADH-peroxidase in thepresence of NADH, at 25 °C and pH 8.5.
Purity	>95%, asdetermined by SDS-PAGE
Specific activity	0.5 U/mg
Temperature and pH optimum	The optimum pH andtemperature are 8.5 and 25 °C, respectively.
Storage	Sulfite oxidase should be stored at 4 °C and will remain stableup to 3 years if stored as specified.

GENE INFORMATION

Gene Name	SUOXsulfite oxidase [Homo sapiens]
Official Symbol	SUOX
Synonyms	sulfite oxidase; EC1.8.3.1; sulfite oxidase, mitochondrial; OTTHUMP00000158619
Gene ID	6821
mRNA Refseq	NM_000456
Protein Refseq	NP_000447
MIM	606887
UniProt ID	P51687

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Chromosome Location	12q13.2
Pathway	Sulfur metabolism, organism-specific biosystem;Sulfur metabolism, conserved biosystem; sulfite oxidation IV, conservedbiosystem; superpathway of methionine degradation, conserved biosystem
Function	binding; electron carrier activity; hemebinding; metal ion binding; molybdenum ion binding; molybdopterin cofactorbinding; oxidoreductase activity; sulfite oxidase activity

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