

Recombinant Human Cysteine Dioxygenase, Type I, His-tagged

Cat. No. CDO1-1250H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	CDO1 Human Recombinant fused with 37 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 207 amino acids (1-170 a.a.) and having a molecular mass of 23.9kDa. The CDO1 is purified by proprietary chromatographic techniques.
Species	Human
Source	Human
ProteinLength	1-170 a.a.
Description	CDO1 (Cysteine dioxygenase) is a mammalian non-heme iron enzyme that initiates a number of significant metabolic pathways associated with pyruvate and several sulfurate compounds including sulfate, hypotaurine and taurine. CDO1 catalyzes the conversion of L-cysteine to cysteine sulfinic acid (cysteine sulfinic acid) by incorporation of dioxygen. CDO1 is a vital regulator of cellular cysteine concentrations and has an essential role in maintaining the hepatic concentration of intracellular free cysteine within a proper narrow range. CDO1 is able to alter intracellular cysteine levels and glutathione levels. CDO1 is highly expressed in the liver and placenta. On the other hand CDO1 has a low expression in heart, brain and pancreas. CDO1 can also be detected in hepatoblastoma HepG2 cells.
Form	The CDO1 solution contains 20mM Tris buffer(pH 8.0), 10% glycerol and 1mM DTT.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Purity	Greater than 90.0% as determined by SDS-PAGE.
Physical Appearance	Sterile Filtered colorless solution.
Amino acid sequence	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMEQ TEVLKPRTLA DLIRILHQLF AGDEVNVEEV QAIMEAYESD PTEWAMYAKF DQYRYTRNLV DQGNGKFNLM ILCWGEGHGS SIHDHTNSHC FLKMLQGNLK ETLFAWPDKK SNEMVKKSER VLRENQCAYI NDSVGLHRVE NISHTEPAVS LHLYSPPFDT CHAFDQR.
Storage	CDO1 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.

GENE INFORMATION

Gene Name	CDO1 cysteine dioxygenase, type I [Homo sapiens]
Official Symbol	CDO1
Synonyms	CDO1; cysteine dioxygenase, type I; cysteine dioxygenase; EC 1.13.11.20; Cysteine dioxygenase type I; CDO-I; CDO
Gene ID	1036
mRNA Refseq	NM_001801
Protein Refseq	NP_001792
MIM	603943

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UniProt ID	Q16878.
Chromosome Location	5q23.2
Pathway	Cysteine and methionine metabolism; Metabolic pathways; Taurine and hypotaurine metabolism
Function	cysteine dioxygenase activity; ferrous iron binding; metal ion binding; oxidoreductase activity

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