
Product Data Sheet

Product Name: CDO1 Human

Cat. No.: GP21474

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Cysteine dioxygenase type 1; Cysteine dioxygenase type I; CDO-I; CDO; CDO1.		
Amino Acid Sequence	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMEQ TEVLKPRTLA DLIRILHQLF AGDEVNVEEV QAIMEAYESD PTEWAMYAKF DQYRYTRNLV DQGNGKFNLM ILCWGEHGS SIHDHTNSHC FLKMLQGNLK ETLFAWPDKK SNEMVKKSER VLRENQCAYI NDSVGLHRVE NISHTEPAVS LHLYSPPFDT CHAFDQR.		
Formulation	The CDO1 solution contains 20mM Tris buffer(pH 8.0), 10% glycerol and 1mM DTT.		

Introduction

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 sulfinate) 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.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1%

Caution: Product has not been fully validated for medical applications. For research use only.

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HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

CDO1 Human Recombinant fused with a 37 amino acids 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.

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