

# CDNF Rat

*CDNF Rat Recombinant*  
NTR0012

## Product Overview

Name CDNF Rat

### Description

CDNF Rat Recombinant

Accession (Primary) [P0C510](#)

### Synonyms

Cysteine dioxygenase type 1, Cysteine dioxygenase type I, CDO-I, CDO, CDO1.

### 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.

### Source

Escherichia Coli.

### Physical Appearance

Sterile Filtered colorless solution.

### Formulation

The CDO1 solution contains 20mM Tris buffer(pH 8.0), 10% glycerol and 1mM DTT.

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

### Purity

Greater than 90.0% as determined by SDS-PAGE.

### Amino acid sequence

MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGS MEQ TEVLKPRTLA DLIRILHQLF AGDEVNVEEV  
QAIMEAYESD PTEWAMYAKF DQYRYTRNLV DQGNGKFNL ILCWGEHGHS SIHDHTNSHC FLKMLQGNLK

ETLFAWPDKK SNEMVKKSER VLRENQCAYI NDSVGLHRVE NISHTEPAVS LHLYSPPFDT CHAFDQR.

#### Precautions

CDNF Rat is for research use only and not for use in diagnostic or therapeutic procedures.

**Target Information:** ( [P0C5I0](#) )