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## Product Data Sheet

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Product Name: SCO2 Human  
 Cat. No.: GP24504  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	SCO1L; SCO Cytochrome Oxidase Deficient Homolog 2 (yeast); Protein SCO2 Homolog-Mitochondrial; MGC125823; MGC125825.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGPAETGGQG QPQGPGLRTR LLITGLFGAG LGGAWLALRA EKERLQQQKR TEALRQAAVG QGDFHLLDHR GRARCKADFR GQWVLMYFGF THCPDICPDE LEKLVQVVRQ LEAEPGLPPV QPVFITVDPE RDDVEAMARY VQDFHPRLLG LTGSTKQVAQ ASHSYRVYYN AGPKDEDQDY IVDHSIAIYL LNPDGLFTDY YGRSRSAEQI SDSVRRHMAA FRSVLS		
Formulation	The SCO2 protein solution (0.5mg/1ml) is formulated in 20mM Tris-HCl buffer (pH8.0) 2mM DTT, 200mM NaCl and 30% glycerol.		

### Introduction

SCO2 protein is a member of the SCO1/2 family. SCO1 and SCO2 proteins are found on the inner membrane of the mitochondria and takes a vital part copper insertion or transport to the active site of cytochrome c oxidase (COX). Flaws in SCO2 are the reason for deadly infantile cardioencephalomyopathy with cytochrome c oxidase deficiency (FIC) which is characterized by hypertrophic cardiomyopathy, lactic acidosis, and gliosis. Heart and skeletal muscle display declines in cytochrome c oxidase (COX) activity, while liver and fibroblasts show mild COX deficiencies.

### 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. Please avoid freeze thaw cycles.

### Background

SCO2 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 246 amino acids (42-266a.a.) and having a molecular mass of 27.4kDa. SCO2 is fused to a 21

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

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amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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