

SCO1 Protein, Human (GST)

Cat. No.:	HY-P71040
Synonyms:	Protein SCO1 Homolog Mitochondrial; SCO1; SCOD1
Species:	Human
Source:	E. coli
Accession:	O75880 (G132-S301)
Gene ID:	6341
Molecular Weight:	Approximately 20.40 kDa

PROPERTIES

AA Sequence	<p>G K P L L G G P F S L T T H T G E R K T D K D Y L G Q W L L I Y F G F T H C P D</p> <p>V C P E E L E K M I Q V V D E I D S I T T L P D L T P L F I S I D P E R D T K E</p> <p>A I A N Y V K E F S P K L V G L T G T R E E V D Q V A R A Y R V Y Y S P G P K D</p> <p>E D E D Y I V D H T I I M Y L I G P D G E F L D Y F G Q N K R K G E I A A S I A</p> <p>T H M R P Y R K K S</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM PB, 1 mM DTT, pH 7.2.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>SCO1 protein serves as a copper metallochaperone crucial for the maturation of cytochrome c oxidase subunit II (MT-CO2/COX2). Although not directly involved in MT-CO2/COX2 synthesis, SCO1 plays an indispensable role in stabilizing MT-CO2/COX2 during its subsequent maturation process, facilitating the transport of copper to the Cu(A) site on MT-CO2/COX2. Beyond its role in mitochondrial function, SCO1 is a key regulator of copper homeostasis, influencing the abundance and cell membrane localization of the copper transporter CTR1. Existing as a homodimer, SCO1 interacts with various partners such as COA6, COX20, COX18, and SCO2, forming complexes critical for the coordination of copper transport and utilization. Notably, SCO1's interactions with COX20, TMEM177, and COX16 are intricately regulated, providing insights into the intricate</p>
------------	---

network of proteins involved in mitochondrial copper homeostasis and cytochrome c oxidase maturation.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA