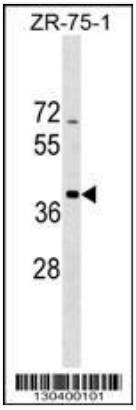
SCO2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	SCO2, Polyclonal Antibody
Full Product Name	SCO2, CT (SCO2, Protein SCO2 homolog, mitochondrial) (FITC)
Product Gene Name	anti-SCO2 antibody
Product Synonym Names	SCO2; Protein SCO2 homolog, mitochondrial
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Fluorescein Isothiocyanate (FITC).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: FITC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
OMIM	604272
3D Structure	ModBase 3D Structure for O43819
Immunogen	SCO2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 195-224 amino acids from the C-terminal region of human SCO2.
Conjugate	FITC
Note	Preservative Free
Special Handling	Light sensitive
Product Categories/Family for anti-SCO2 antibody	Antibodies; Mitochondrial Proteins
Applications Tested/Suitable for anti-SCO2 antibody	Western Blot (WB), FLISA
Application Notes for anti-SCO2 antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-SCO2 antibody	Cytochrome c oxidase (COX) catalyzes the transfer of electrons from cytochrome c to molecular oxygen, which helps to maintain the proton gradient across the inner mitochondrial membrane that is necessary for aerobic ATP production. Human COX is a multimeric protein complex that requires several assembly factors; this gene encodes one of the COX asembly factors. The encoded protein is a metallochaperone that is involved in the biogenesis of cytochrome c oxidase subunit II. Mutations in this gene are associated with fatal infantile encephalocardiomyopathy.
Product References and Citations for anti-SCO2 antibody	Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010). Foltopoulou, P.F., et al. Biochim. Biophys. Acta 1802(6):497-508(2010). Pronicki, M., et al. Eur. J. Paediatr. Neurol. 14(3):253-260(2010). Kamatani, Y., et al. Nat. Genet. 42(3):210-215(2010). Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009).

Other Notes	Small volumes of anti-SCO2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SCO2 purchase	MBS6345396 is an antibody targeting SCO2. Also known as SCO2, CT (SCO2, Protein SCO2 homolog, mitochondrial) (FITC). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-SCO2 antibody
SCO2 Antibody (C-term) western blot analysis in ZR-75-1 cell line lysates (35ug/lane).This demonstrates the SCO2 antibody detected the SCO2 protein (arrow).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SCO2. It may not necessarily be applicable to this product.

NCBI GI #	281182722
NCBI GeneID	9997
NCBI Accession #	NP_001162581.1
UniProt Primary Accession #	O43819
UniProt Related Accession #	O43819
GenBank Nucleotide #	NP_001162581.1
NCBI Official Full Name	protein SCO2 homolog, mitochondrial
NCBI Official Synonym Full Names	synthesis of cytochrome C oxidase 2
NCBI Official Symbol	SCO2
NCBI Official Synonym Symbols	TP; MYP6; TYMP; ECGF1; SCO1L; CEMCOX1; PD-ECGF; TdRPase; Gliostatin
UniProt Protein Name	Protein SCO2 homolog, mitochondrial
Protein Family	Protein
UniProt Gene Name	SCO2
UniProt Entry Name	SCO2_HUMAN
NCBI Protein Information	protein SCO2 homolog, mitochondrial
NCBI Summary for SCO2	Cytochrome c oxidase (COX) catalyzes the transfer of electrons from cytochrome c to molecular oxygen, which helps to maintain the proton gradient across the inner mitochondrial membrane that is necessary for aerobic ATP production. Human COX is a multimeric protein complex that requires several assembly factors; this gene encodes one of the COX assembly factors. The encoded protein is a metallochaperone that is involved in the biogenesis of cytochrome c oxidase subunit II. Mutations in this gene are associated with fatal infantile encephalocardiomyopathy and myopia 6. [provided by RefSeq, Oct 2014]

UniProt Comments for SCO2	SCO2: Acts as a copper chaperone, transporting copper to the Cu(A) site on the cytochrome c oxidase subunit II (COX2). Defects in SCO2 are the cause of fatal infantile cardioencephalomyopathy with cytochrome c oxidase deficiency (FIC). This disease is characterized by hypertrophic cardiomyopathy, lactic acidosis, and gliosis. Heart and skeletal muscle show reductions in cytochrome c oxidase (COX) activity, whereas liver and fibroblasts show mild COX deficiencies. Belongs to the SCO1/2 family. Protein type: Mitochondrial Chromosomal Location of Human Ortholog: 22q13.33 Cellular Component: nucleoplasm; myofibril; mitochondrion; mitochondrial inner membrane Molecular Function: copper ion binding Biological Process: cellular copper ion homeostasis; eye development; in utero embryonic development; respiratory chain complex IV assembly; response to activity; copper ion transport; muscle system process Disease: Cardioencephalomyopathy, Fatal Infantile, Due To Cytochrome C Oxidase Deficiency 1; Myopia 6
Research Articles on SCO2	**1.** High expression of synthesis of cytochrome c oxidase 2 and TP53-induced glycolysis and apoptosis regulator can predict poor prognosis in human lung adenocarcinoma
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