
Product Data Sheet

Product Name: STC 2 Human, His
 Cat. No.: GP21310
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Stanniocalcin-2; STC; STC2; STCRP; STC-2; Stanniocalcin-related protein; STC-related protein.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSTDATNPP EGPQDRSSQQ KGRLSLQNTA EIQHCLVNAG DVGCGVFECF ENNSCEIRGL HGICMTFLHN AGKFDAQGKS FIKDALKCKA HALRHRFGCI SRKCPAIREM VSQLQRECYL KHDLCAAAQE NTRVIVEMIH FKDLLLHEPY VDLVNLLLC GEEVKEAITH SVQVQCEQNW GSLCSILSFC TSAIQKPPTA PPERQPQVDR TKLSRAHHGE AGHHLPEPSS RETGRGAKGE RGSKSHRNAH ARGRVGGLGA QGPSGSSEWE DEQSEYSDIR R.		
Formulation	STC 2 protein solution (0.25mg/ml) containing 20mM Tris-HCl buffer (pH 8.0), 0.25M NaCl, 30% glycerol and 1mM DTT.		

Introduction

STC2 is a homodimeric glycoprotein that is expressed in a wide variety of tissues and may have autocrine or paracrine functions. The encoded protein has 10 of its 15 cysteine residues conserved among stanniocalcin family members and is phosphorylated by casein kinase 2 exclusively on its serine residues. Its C-terminus contains a cluster of histidine residues which may interact with metal ions. The protein may play a role in the regulation of renal and intestinal calcium and phosphate transport, cell metabolism, or cellular calcium/phosphate homeostasis. Constitutive over expression of human stanniocalcin 2 in mice resulted in pre- and postnatal growth restriction, reduced bone and skeletal muscle growth, and organomegaly. Expression of this gene is induced by estrogen and altered in some breast cancers.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer

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

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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.

Background

STC 2 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 301 amino acids (25-302 a.a.) and having a molecular mass of 33kDa. STC 2 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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