Data Sheet (Cat.No.TMPY-00371)

TargetMol

STC1 Protein, Human, Recombinant (His)

General Information

Synonyms:	stanniocalcin 1;STC
Protein Construction:	A DNA sequence encoding the human STC1 (NP_003146.1) (Met1-Ala247) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Thr 18
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P52823-1
Molecular Weight:	27.4 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Stanniocalcin-1 (STC1) is a paracrine factor associated with inflammation and carcinogenesis. STC1 is a secreted glycoprotein hormone and involved in various types of human malignancies. Stanniocalcin-1 (STC1), which has myriad functions, including the maintenance of calcium homeostasis, the promotion of early wound healing, uncoupling respiration (aerobic glycolysis), reepithelialization in damaged tissues, the inhibition of vascular leakage, and the regulation of macrophage functions to keep epithelial and endothelial homeostasis, which may

adequately cover the myriad therapeutic targets of IPF. STC1 signals through inhibitory G-protein modulates CGRP receptor spatial localization during osteoblastogenesis and may function as a regulatory factor interacting with calcitonin peptide members during bone formation.

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