

Recombinant Stromal Interaction Molecule 1

Cat. No. STIM1-4619H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant STIM1 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 343 amino acids and having a molecular mass of 38 kDa. STIM1 is fused to Calmodulin and purified by conventional chromatography techniques.
Species	Human
Source	Human
Description	STIM1 is a type-1 transmembrane protein that is necessary for store-operated Ca(2+) entry, a process of extracellular Ca(2+) influx in response to the depletion of Ca(2+) stores in the endoplasmic reticulum (ER). STIM1 localizes predominantly to the ER; upon Ca(2+) release from the ER, STIM1 translocates to the ER-plasma membrane junctions and activates Ca(2+) channels. STIM1 is an adhesion molecule involved in early hematopoiesis by mediating attachment to stromal cells. STIM1 controls the survival and/or proliferation of b-cell precursors.
Form	The STIM1 protein solution (1mg/ml) contains 20mM Tris pH-7.5.
Purity	Greater than 90.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Physical Appearance	Sterile filtered colorless solution.
Amino acid sequence	MADQLTEEQI AEFKEAFSLF DKDGDGTITT KELGTVMRSL GQNPTEAELQ DMINEVDADG NGTIDFPEFL TMMARKMKDT DSEEEIREAF RVFDKDGNGY

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

ISAAELRHVM TNLGEKLTDE EVDEMIREAD IDGDGQVNYE EFVQMMTAKG
 SMLSHSHSEK ATGTSSGANS EESTAAEFCE IDKPLCHSED EKLSFEAVRN
 IHKLMDDDAN GDVDVEESDE FLREDLNYHD PTVKHSTFHG EDKLISVEDL
 WKAWKSSEVY NWTVDEVVQW LITYVELPQY EETFRKLQLS GHAMPRLAVT
 NTTMTGTVLK MDRSHRQKL QLKALDTVLF GPPLLTRHNNH LKD.

Storage

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

Pathways

SNARE interactions in vesicular transport; Membrane Trafficking

GENE INFORMATION

Gene Name

STIM1 stromal interaction molecule 1 [Homo sapiens]

Official Symbol

STIM1

Synonyms

STIM1; stromal interaction molecule 1; STIM1 stromal interaction molecule 1; GOK; D11S4896E

Gene ID

6786

mRNA Refseq

NM_003156

Protein Refseq

NP_003147

MIM

605921

UniProt ID

Q13586

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Chromosome Location	11p15.5
Function	calcium ion binding; protein binding

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