

# Recombinant Stromal Interaction Molecule 1

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

## SPECIFICATION

<b>Product Overview</b>	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.
<b>Species</b>	Human
<b>Source</b>	Human
<b>Description</b>	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.
<b>Form</b>	The STIM1 protein solution (1mg/ml) contains 20mM Tris pH-7.5.
<b>Purity</b>	Greater than 90.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
<b>Physical Appearance</b>	Sterile filtered colorless solution.
<b>Amino acid sequence</b>	MADQLTEEQI AEFKEAFSLF DKDGDGTITT KELGTVMRS� GQNPTEAELQ DMINEVDADG NGTIDFPEFL TMMARKMKDT DSEEEIREAF RVFDKDGNGY

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ISAAELRHVM TNLGEKLTDE EVDEMIREAD IDGDGQVNYE EFVQMMTAKG  
 SMLSHSHSEK ATGTSSGANS EESTAAEFGR IDKPLCHSED EKLSFEAVRN  
 IHKLMDDAN 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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<b>Chromosome Location</b>	11p15.5
<b>Function</b>	calcium ion binding; protein binding

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