

**STIM1 Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP10114b**

**Specification**

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**STIM1 Antibody (C-term) Blocking peptide - Product Information**

Primary Accession  
Other Accession

[Q13586](#)  
[NP\\_003147.2](#)

**STIM1 Antibody (C-term) Blocking peptide - Additional Information**

**Gene ID** 6786

**Other Names**

Stromal interaction molecule 1, STIM1, GOK

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**STIM1 Antibody (C-term) Blocking peptide - Protein Information**

**Name** STIM1

**Synonyms** GOK {ECO:0000303|PubMed:9377559}

**Function**

Plays a role in mediating store-operated Ca(2+) entry (SOCE), a Ca(2+) influx following depletion of intracellular Ca(2+) stores (PubMed:<a href="http://www.uniprot.org/citations/15866891" target="\_blank">15866891</a>, PubMed:<a href="http://www.uniprot.org/citations/16005298" target="\_blank">16005298</a>, PubMed:<a href="http://www.uniprot.org/citations/16208375" target="\_blank">16208375</a>, PubMed:<a href="http://www.uniprot.org/citations/16537481" target="\_blank">16537481</a>, PubMed:<a href="http://www.uniprot.org/citations/16733527" target="\_blank">16733527</a>, PubMed:<a href="http://www.uniprot.org/citations/16766533" target="\_blank">16766533</a>, PubMed:<a href="http://www.uniprot.org/citations/16807233" target="\_blank">16807233</a>, PubMed:<a href="http://www.uniprot.org/citations/18854159" target="\_blank">18854159</a>, PubMed:<a href="http://www.uniprot.org/citations/19249086" target="\_blank">19249086</a>, PubMed:<a href="http://www.uniprot.org/citations/22464749" target="\_blank">22464749</a>, PubMed:<a href="http://www.uniprot.org/citations/24069340" target="\_blank">24069340</a>, PubMed:<a href="http://www.uniprot.org/citations/24351972" target="\_blank">24351972</a>, PubMed:<a href="http://www.uniprot.org/citations/24591628" target="\_blank">24591628</a>, PubMed:<a href="http://www.uniprot.org/citations/26322679"

target="\_blank">>26322679</a>, PubMed:<a href="http://www.uniprot.org/citations/25326555" target="\_blank">25326555</a>, PubMed:<a href="http://www.uniprot.org/citations/28219928" target="\_blank">28219928</a>). Acts as a Ca(2+) sensor in the endoplasmic reticulum via its EF-hand domain. Upon Ca(2+) depletion, translocates from the endoplasmic reticulum to the plasma membrane where it activates the Ca(2+) release- activated Ca(2+) (CRAC) channel subunit ORAI1 (PubMed:<a href="http://www.uniprot.org/citations/16208375" target="\_blank">16208375</a>, PubMed:<a href="http://www.uniprot.org/citations/16537481" target="\_blank">16537481</a>). Involved in enamel formation (PubMed:<a href="http://www.uniprot.org/citations/24621671" target="\_blank">24621671</a>). Activated following interaction with STIMATE, leading to promote STIM1 conformational switch (PubMed:<a href="http://www.uniprot.org/citations/26322679" target="\_blank">26322679</a>).

### **Cellular Location**

Cell membrane; Single-pass type I membrane protein. Endoplasmic reticulum membrane; Single-pass type I membrane protein. Cytoplasm, cytoskeleton. Sarcoplasmic reticulum.  
Note=Translocates from the endoplasmic reticulum to the cell membrane in response to a depletion of intracellular calcium and is detected at punctae corresponding to junctions between the endoplasmic reticulum and the cell membrane (PubMed:19249086, PubMed:16005298, PubMed:16208375, PubMed:18854159) Associated with the microtubule network at the growing distal tip of microtubules (PubMed:19632184). Colocalizes with ORAI1 at the cell membrane (PubMed:27185316). Colocalizes preferentially with CASQ1 at endoplasmic reticulum in response to a depletion of intracellular calcium (PubMed:27185316).

### **Tissue Location**

Ubiquitously expressed in various human primary cells and tumor cell lines.

### **STIM1 Antibody (C-term) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

### **STIM1 Antibody (C-term) Blocking peptide - Images**

### **STIM1 Antibody (C-term) Blocking peptide - Background**

This gene encodes a type 1 transmembrane protein that mediates Ca2+ influx after depletion of intracellular Ca2+ stores by gating of store-operated Ca2+ influx channels (SOCs). It is one of several genes located in the imprinted gene domain of 11p15.5, an important tumor-suppressor gene region. Alterations in this region have been associated with the Beckwith-Wiedemann syndrome, Wilms tumor, rhabdomyosarcoma, adrenocortical carcinoma, and lung, ovarian, and breast cancer. This gene may play a role in malignancies and disease that involve this region, as well as early hematopoiesis, by mediating attachment to stromal cells. This gene is oriented in a head-to-tail configuration with the ribonucleotidereductase 1 gene (RRM1), with the 3' end of this gene situated 1.6 kb from the 5' end of the RRM1 gene.

### **STIM1 Antibody (C-term) Blocking peptide - References**

Byun, M., et al. J. Exp. Med. 207(11):2307-2312(2010) Park, C.Y., et al. Science 330(6000):101-105(2010) Walsh, C.M., et al. Biochem. J. 430(3):453-460(2010) Hawkins, B.J., et al. J. Cell Biol. 190(3):391-405(2010) Woodward, O.M., et al. PLoS ONE 5 (8), E12305 (2010) :