

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

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

Primary Accession [O13586](#)
Other Accession [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:15866891, PubMed:16005298, PubMed:16208375, PubMed:16537481, PubMed:16733527, PubMed:16766533, PubMed:16807233, PubMed:18854159, PubMed:19249086, PubMed:22464749, PubMed:24069340, PubMed:24351972, PubMed:24591628, PubMed:26322679

target="_blank">26322679, PubMed:25326555, PubMed:28219928). 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:16208375, PubMed:16537481). Involved in enamel formation (PubMed:24621671). Activated following interaction with STIMATE, leading to promote STIM1 conformational switch (PubMed:26322679).

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 ribonucleotide reductase 1 gene (RRM1), with the 3' end of this gene situated 1.6kb 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) :