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STIM1 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP10114b

Specification

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

Primary Accession	Q13586
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
Acts as a Ca(2+) sensor that gates two major inward rectifying Ca(2+) channels at the plasma membrane: Ca(2+) release- activated Ca(2+) (CRAC) channels and arachidonate-regulated Ca(2+)- selective (ARC) channels (PubMed:15866891, PubMed:16005298, PubMed:16208375, PubMed:16537481, PubMed:16733527, PubMed:16766533, PubMed:16807233, PubMed:18854159, PubMed:19182790, PubMed:19249086, PubMed:19622606, PubMed:19706554, PubMed:<a href="http://www.uniprot.org/citations/22464749"

target="_blank">22464749, PubMed:24069340, PubMed:24351972, PubMed:24591628, PubMed:25326555, PubMed:26322679, PubMed:28219928, PubMed:32415068). Plays a role in mediating store- operated Ca(2+) entry (SOCE), a Ca(2+) influx following depletion of intracellular Ca(2+) stores. Upon Ca(2+) depletion, translocates from the endoplasmic reticulum to the plasma membrane where it activates CRAC channel pore-forming subunits ORA1, ORA2 and ORAI3 to generate sustained and oscillatory Ca(2+) entry (PubMed:16208375, PubMed:16537481, PubMed:32415068). Involved in enamel formation (PubMed:24621671).

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:16005298, PubMed:16208375, PubMed:18854159, PubMed:19182790, PubMed:19249086). 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 thatmediates Ca2+ influx after depletion of intracellular Ca2+ storesby gating of store-operated Ca2+ influx channels (SOCs). It is oneof several genes located in the imprinted gene domain of 11p15.5,an important tumor-suppressor gene region. Alterations in thisregion have been associated with the Beckwith-Wiedemann syndrome,Wilms tumor, rhabdomyosarcoma, adrenocrotical carcinoma, and lung,ovarian, and breast cancer. This gene may play a role inmalignancies and disease that involve this region, as well as earlyhematopoiesis, by mediating attachment to stromal cells. This geneis oriented in a head-to-tail configuration with the ribonucleotidereductase 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) :