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GOK / STIM1 Antibody (clone 5A2)

Mouse Monoclonal Antibody
Catalog # ALS13401

Specification

GOK / STIM1 Antibody (clone 5A2) - Product Information

Application	**WB, IF, IHC**
Primary Accession	Q13586
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**77kDa KDa**

GOK / STIM1 Antibody (clone 5A2) - Additional Information

Gene ID 6786

Other Names
Stromal interaction molecule 1, STIM1, GOK

Reconstitution & Storage
Store at -20°C. Aliquot to avoid freeze/thaw cycles.

Precautions
GOK / STIM1 Antibody (clone 5A2) is for research use only and not for use in diagnostic or therapeutic procedures.

GOK / STIM1 Antibody (clone 5A2) - 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:<a href="http://www.uniprot.org/citations/24591628"

target="_blank">24591628, PubMed: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.

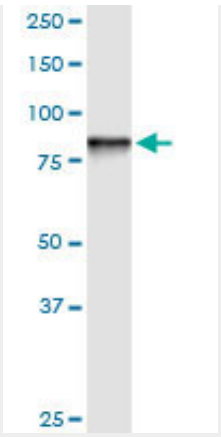
GOK / STIM1 Antibody (clone 5A2) - Protocols

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

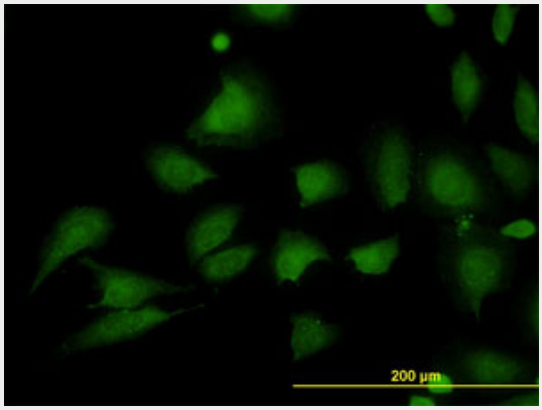
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GOK / STIM1 Antibody (clone 5A2) - Images

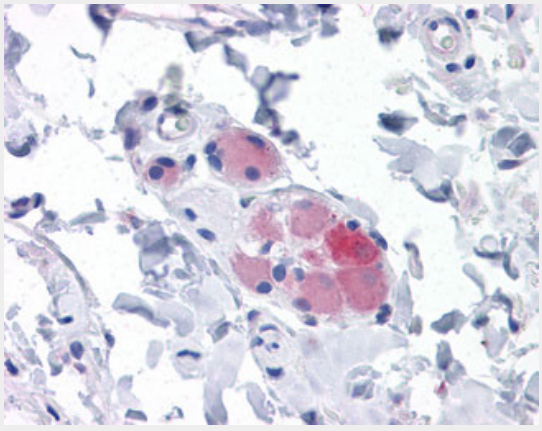
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STIM1 monoclonal antibody clone 5A2. Western blot of STIM1 expression in human liver.

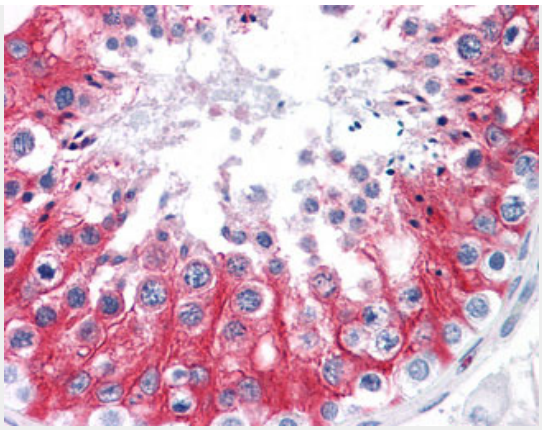


Immunofluorescence of monoclonal antibody to STIM1 on HeLa cell (antibody concentration 10 ug/ml).



Anti-STIM1 antibody IHC of human small intestine, submucosal plexus.

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Anti-STIM1 antibody IHC of human testis.

GOK / STIM1 Antibody (clone 5A2) - Background

Plays a role in mediating store-operated Ca(2+) entry (SOCE), a Ca(2+) influx following depletion of intracellular Ca(2+) stores. Acts as 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, TMEM142A/ORAI1.

GOK / STIM1 Antibody (clone 5A2) - References

Parker N.J.,et al.Genomics 37:253-256(1996).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Taylor T.D.,et al.Nature 440:497-500(2006).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Sabbioni S.,et al.Cancer Res. 57:4493-4497(1997).