

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: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

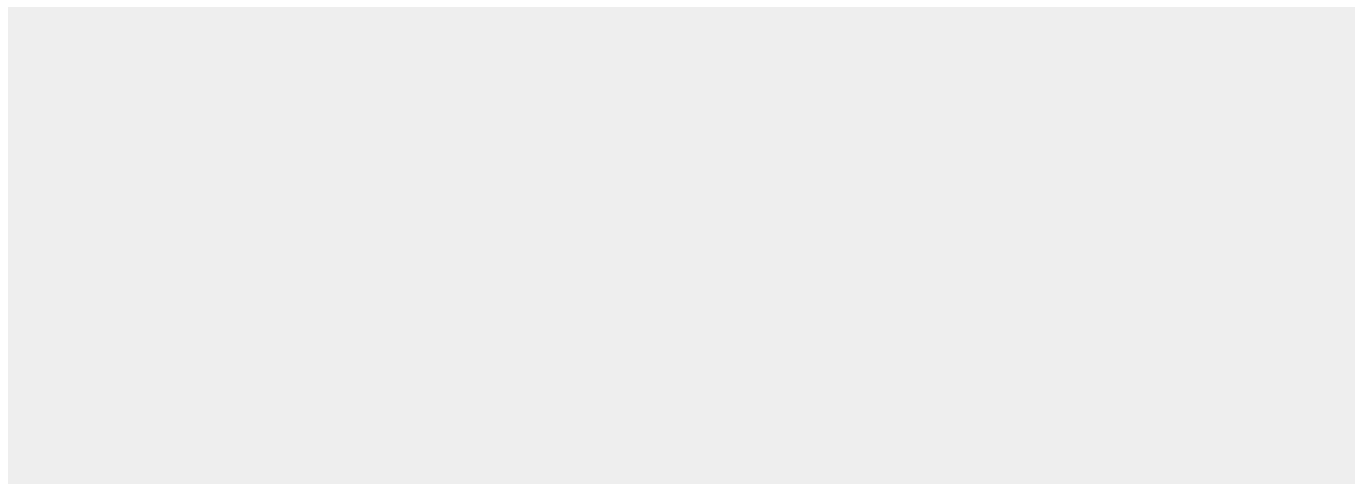
Ubiquitously expressed in various human primary cells and tumor cell lines.

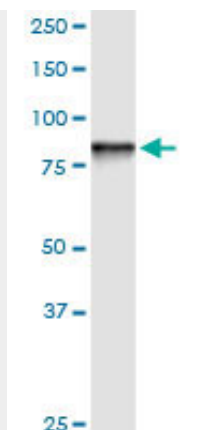
GOK / STIM1 Antibody (clone 5A2) - Protocols

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

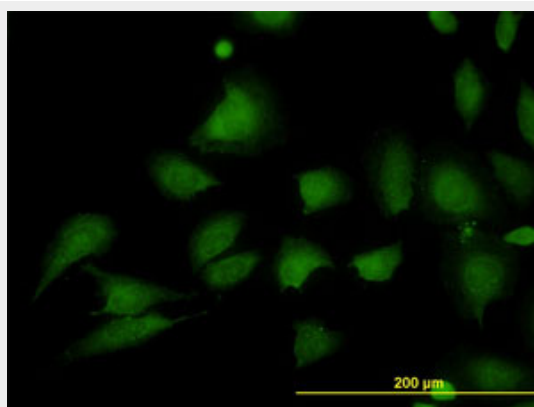
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

GOK / STIM1 Antibody (clone 5A2) - Images

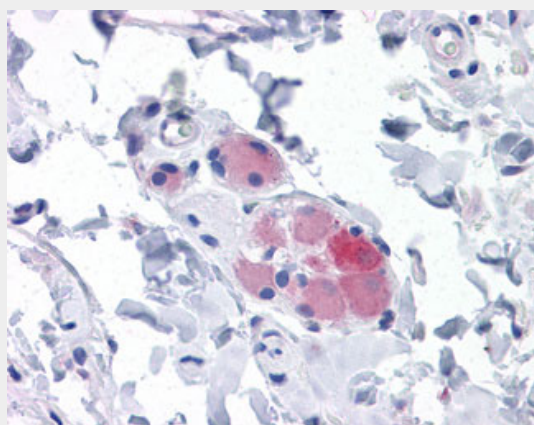




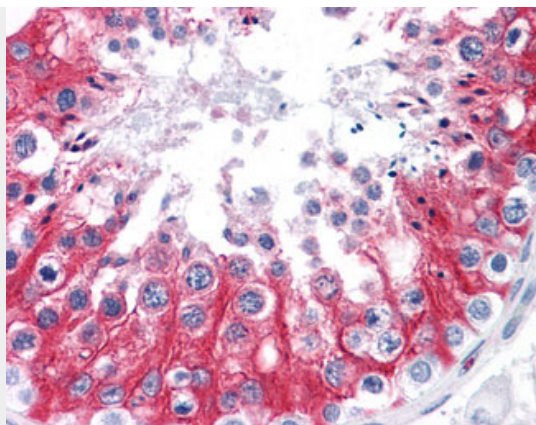
STIM1 monoclonal antibody clone 5A2. Western blot of STIM1 expression in human liver.



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



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



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).