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STIM2 Antibody
Catalog # ASC10531

Specification

STIM2 Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	Q9P246
Other Accession	NP_065911, 41349446
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**STIM2 antibody can be used for detection of STIM2 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

STIM2 Antibody - Additional Information

Gene ID **57620**

Other Names
STIM2 Antibody: KIAA1482, Stromal interaction molecule 2, stromal interaction molecule 2

Target/Specificity
STIM2;

Reconstitution & Storage
STIM2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
STIM2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

STIM2 Antibody - Protein Information

Name STIM2

Synonyms KIAA1482

Function
Plays a role in mediating store-operated Ca(2+) entry (SOCE), a Ca(2+) influx following depletion of intracellular Ca(2+) stores. Functions as a highly sensitive Ca(2+) sensor in the endoplasmic reticulum which activates both store-operated and store-independent Ca(2+)-influx. Regulates basal cytosolic and endoplasmic reticulum Ca(2+) concentrations. Upon mild variations of the endoplasmic reticulum Ca(2+) concentration, translocates from the endoplasmic reticulum to the

plasma membrane where it probably activates the Ca(2+) release-activated Ca(2+) (CRAC) channels ORAI1, ORAI2 and ORAI3. May inhibit STIM1-mediated Ca(2+) influx.

Cellular Location
Endoplasmic reticulum membrane; Single-pass type I membrane protein. Note=Dynamically translocates from a uniform endoplasmic reticulum distribution to punctual endoplasmic reticulum-plasma membrane junctions in response to decrease in endoplasmic reticulum Ca(2+) concentration

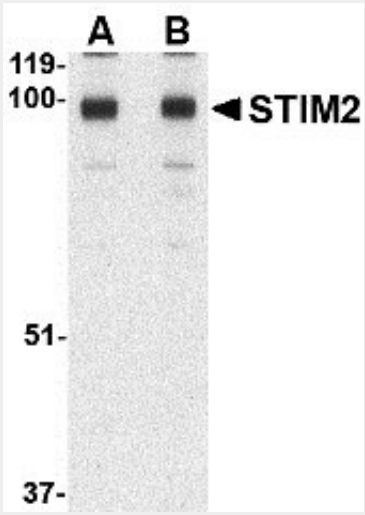
Tissue Location
Expressed in all tissues and tumor cell lines examined.

STIM2 Antibody - 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

STIM2 Antibody - Images



Western blot analysis of STIM2 in A-20 cell lysate with STIM2 antibody at (A) 0.5 and (B) 1 µg/mL.

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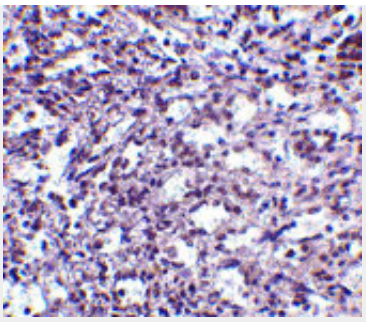
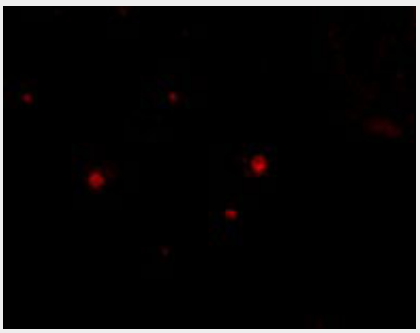


Immunohistochemistry of STIM2 in human spleen tissue with STIM2 antibody at 2.5 µg/mL.



Immunofluorescence of STIM2 in Human Spleen cells with STIM2 antibody at 20 µg/mL.

STIM2 Antibody - Background

STIM2 Antibody: In T lymphocytes, the sole pathway for Ca++ entry following antigen-receptor binding is through store-operated Ca++-release-activated Ca++ (CRAC) channels. These channels are made up of the pore-forming subunit ORAI1 and the stromal interaction molecule 1 (STIM1), a protein that functions as a Ca++ sensor and activates the CRAC channels, migrating to the plasma membrane from endoplasmic reticulum (ER)-like sites which act as the Ca++ store. A related molecule, STIM2, acts to inhibit the STIM1-mediated store-operated Ca++ entry, and can form complexes with STIM1, suggesting they may play a coordinated role in controlling Ca++ entry. At least three isoforms of STIM2 are known to exist. This STIM2 antibody is predicted to have no cross-reactivity to STIM1.

STIM2 Antibody - References

Luik RM and Lewis RS. New insights into the molecular mechanisms of store-operated Ca2+ signaling in T cells. Trends Mol. Med.2007; 13:103-7.
Feske S, Gwack Y, Prakriya M, et al. A mutation in Orai1 causes immune deficiency by abrogating CRAC channel function. Nature2006; 441:179-85.
Zhang SL, Yu Y, Roos J, et al. STIM1 is a Ca2+ sensor that activates CRAC channels and migrates from the Ca2+ store to the plasma membrane. Nature2005; 437:902-5.
Spassova MA, Soboloff J, He L-P, et al. STIM1 has a plasma membrane role in the activation of store-operated Ca2+ channels. Proc. Natl. Acad. Sci. USA2006; 103:4040-5.