10320 Camino Santa Fe, Suite G San Diego, CA 92121 Tel: 858.875.1900 Fax: 858.875.1999



# Stromal interaction molecule 1 Antibody

Rabbit mAb Catalog # AP90887

#### **Product Information**

**Application** WB, IHC, IP **Primary Accession** Q13586

**Reactivity** Rat, Human, Mouse

**Clonality** Monoclonal

Other Names GOK; SIM; STIM 1; Stim1 stromal interaction molecule 1; STIM1L; Stromal

interaction molecule 1;

IsotypeRabbit IgGHostRabbitCalculated MW77423

#### **Additional Information**

**Dilution** WB 1:1000~1:2000 IHC 1:50~1:200 IP 1:50

**Purification** Affinity-chromatography

**Immunogen** A synthesized peptide derived from human Stromal interaction molecule 1

**Description** STIM1 is a potential tumor suppressor; defects in STIM1 may cause

rhabdomyosarcoma and rhabdoid tumors. STIM1 can either homodimerize or form heterodimers with STIM2. STIM2 possesses a high sequence identity to STIM1 and can function as an inhibitor of STIM1-mediated plasma membrane store-operated Ca2+ entry. However, further investigation is required to

elucidate the true physiological function of STIM2.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

### **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: 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).

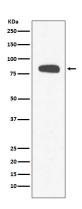
#### **Cellular Location**

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.

## **Images**



Western blot analysis of Stromal interaction molecule 1 expression in HeLa cell lysate.

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