Get Focused

Issue 6

EXBIO

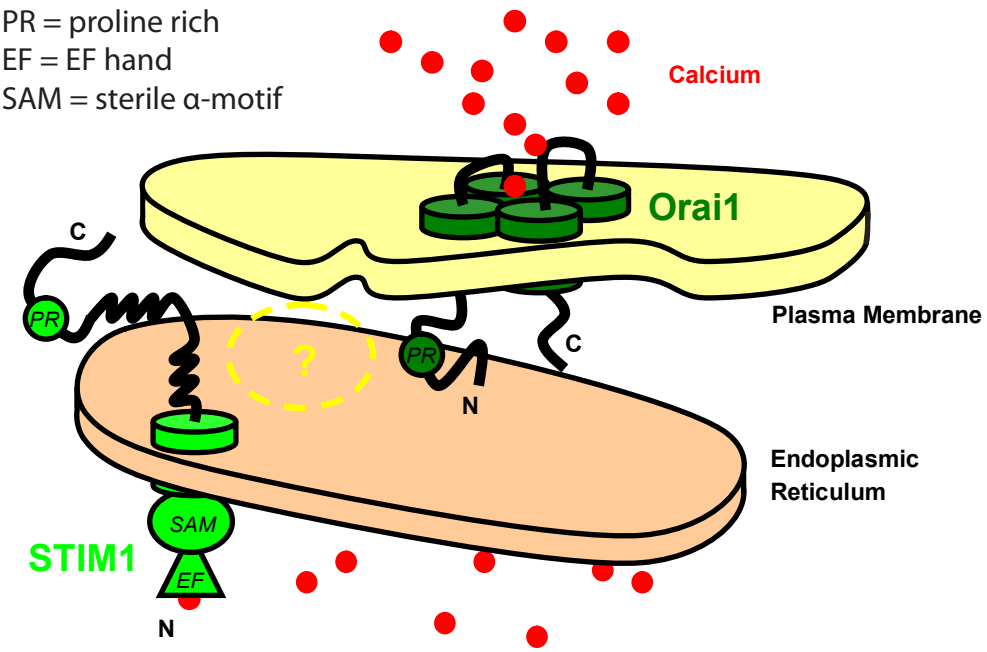
Antibodies

Cell Signaling

Explore Calcium Signaling

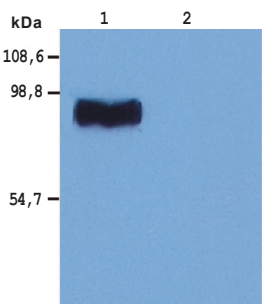
Phospholipase C-coupled receptors activate calcium release from the endoplasmic reticulum, which leads to influx of extracellular calcium through still elusive CRAC (Ca2+ release-activated Ca2+) channels. Accumulating evidence suggests that STIM1 (stromal interacting molecule; also known as GOK) acts as a sensor of calcium depletion within the endoplasmic reticulum and transduces the signal to Orai1, the presumptive CRAC channel at the plasma membrane. Following decrease of luminal calcium concentration, STIM1 oligomerizes and induces Orai1 to enable entry of extracellular calcium into the cytoplasm. However, the precise mechanism of STIM1-Orai1 interaction has not been elucidated yet. Many questions also remain to be solved around STIM1 functional distribution. It turns out that STIM1 associates with growing ends of microtubules and is involved in endoplasmic reticulum tubule extension. ***(1-6)***

PR = proline rich
EF = EF hand
SAM = sterile α-motif



Exbio offers mouse monoclonal antibody (clone **CDN3H4**) against human and rodent STIM1. This product is suitable for immunocytochemistry, immunoprecipitation and Western blotting.

Western blotting analysis of rat RBL mast cell lysate.
1) Immunostaining with anti-STIM1 (CDN3H4)
2) Immunostaining with isotype mouse IgG1 control



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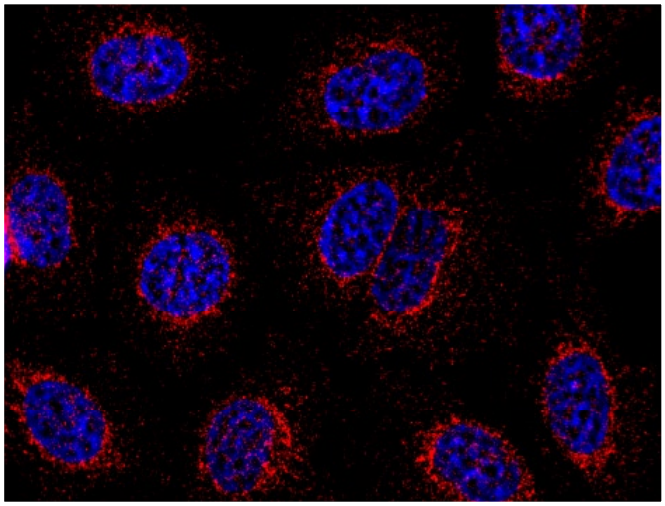
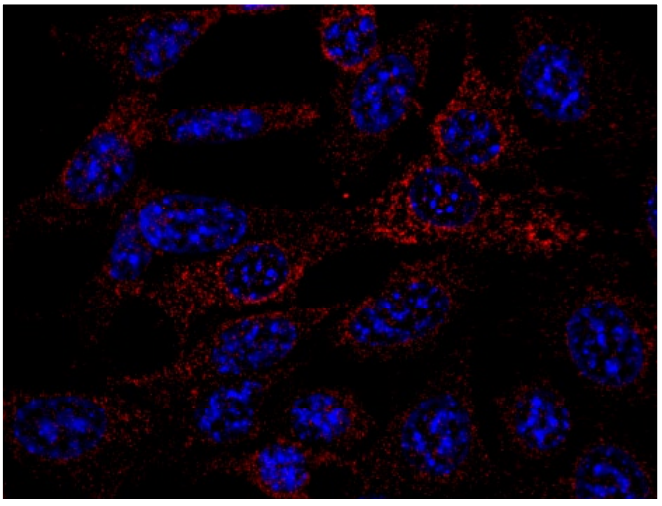


Immunofluorescence detection of STIM1 (red) in HeLa cells by mouse monoclonal CDN3H4 and goat anti-mouse Alexa Fluor® 598 conjugate. Cell nuclei stained with DAPI (blue).



Immunofluorescence detection of STIM1 (red) in mouse fibroblasts by mouse monoclonal CDN3H4 and goat anti-mouse Alexa Fluor® 598 conjugate. Cell nuclei stained with DAPI (blue).

Mouse Monoclonal to STIM1:

Clone	Isotype	Reactivity	Application	Catalogue No.	Format
CDN3H4	IgG1	Hu, Ms, Rt	WB, IP, ICC	11-497-C100	Purified, 0.1 mg

RELATED PRODUCTS:

Mouse Monoclonal to AHNAK1:

AHNAK1 is a large (700 kDa) scaffold protein that plays essential role in regulation of Ca_V1 calcium channels (7-9).

Clone	Isotype	Reactivity	Application	Catalogue No.	Format
EM-09	IgG	Hu, Ms	WB, ICC	11-540-C100	Purified, 0.1 mg

Mouse Monoclonal to CD20:

CD20 is a B cell-specific transmembrane protein important for store-operated calcium entry (10-12).

Clone	Isotype	Reactivity	Application	Catalogue No.	Format
LT20	IgG2a	Hu	FC	11-414-C100 1B-414-C100 PB-414-T100 1F-414-T100 A4-414-T100 1P-414-T100 1T-414-T100 1Y-414-T100 1A-414-T100 PC-414-T100 A7-414-T100	Purified, 0.1 mg Biotin, 0.1 mg Pacific Blue™, 100 tests FITC, 100 tests Alexa Fluor® 488, 100 tests PE, 100 tests PE-Dyomics 590, 100 tests PE-Dyomics 647, 100 tests APC, 100 tests PerCP, 100 tests Alexa Fluor® 700, 100 tests
MEM-97	IgG1	Hu, Por, Bov	IP, FC	11-217-C100 11-217-M001 10-217-C100	Purified, 0.1 mg Purified, 1.0 mg Azide Free, 0.1 mg

Bov = Bovine; Hu = Human; Ms = Mouse; Por = Porcine; Rt = Rat
FC = Flow cytometry; ICC = Immunocytochemistry; IP = Immunoprecipitation; WB = Western blotting

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Immunofluorescence images provided by Dr. J. Černý, Department of Cell Biology, Faculty of Sciences, Charles University, Prague, Czech Republic.

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