

Anti-STIM1 Purified Monoclonal Antibody

Catalog Number: M00312-1

About STIM1

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.

Overview

Product Name	Anti-STIM1 Purified Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-STIM1 Purified Monoclonal Antibody (Catalog# M00312-1). Tested in IP, WB, IHC-P, ICC application(s). This antibody reacts with Rat, Human, Mouse.
Application	IP, IHC-P, ICC, WB
Clonality	Monoclonal CDN3H4
Formulation	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Storage Instructions	Store at 2-8°C. Do not freeze.
Host	Mouse
Uniprot ID	G0XQ39

Technical Details

Immunogen	Synthesized peptide (C-terminal cytoplasmic part of STIM1). The mouse monoclonal antibody CDN3H4 reacts with a cytoplasmic epitope of human and rodent STIM1, a 84 kDa essential and conserved regulator of store-operated Ca ²⁺ channel function.
Predicted Reactive Species	Primate
Isotype	Mouse IgG1
Form	Liquid
Concentration	1 mg/ml
Purification	Purified by protein-A affinity chromatography.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.
Some PubMed article(s) citing the expression level of this target are as follows:
Boster Bio's internal QC testing used:
Immunocytochemistry: Methanol-aceton fixation; positive control: HeLa human cervix carcinoma cell line.
Immunohistochemistry (paraffin sections): 5 ug/ml.
Western blotting: 1 ug/ml; positive control: RBL rat basophilic leukemia cell line; both reducing and non-reducing conditions.

Anti-STIM1 Purified Monoclonal Antibody (M00312-1) Images

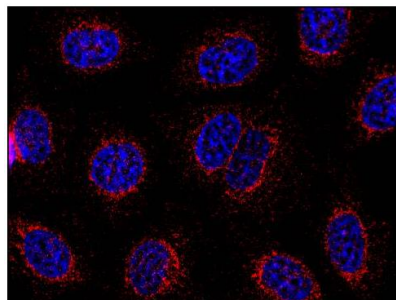


Figure 1. Immunocytochemistry staining of STIM1 using Anti-STIM1 Purified Monoclonal Antibody (M00312-1).

Immunocytochemistry staining of HeLa human cervix carcinoma cell line using anti-STIM1 (CDN3H4; methanol-aceton fixation; detection by Goat anti-mouse IgG1 Alexa Fluor® 598; red). Nuclei were stained with DAPI (blue).

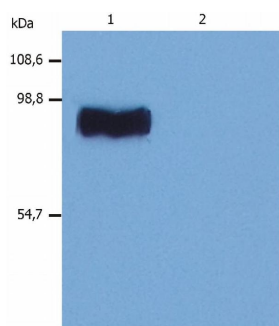


Figure 2. Western blotting validation for Anti-STIM1 Purified Monoclonal Antibody M00312-1

Western blotting analysis (non-reducing conditions) of whole cell lysate of RBL rat basophilic leukemia cell line.
Lane 1: immunostaining with anti-STIM1 (CDN3H4)
Lane 2: immunostaining with Isotype mouse IgG1 control (PPV-06; cat. no. 11-457-C100)
Electrophoresis was performed on a SDS-PAGE gel. To determine SDS-PAGE gel concentration

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