Monoclonal Antibody to STIM1
Purified Antibody (0.1 mg)

Clone: CDN3H4
Isotype: Mouse IgG1
Specificity: The antibody CDN3H4 reacts with human and rodent STIM1, a 84 kDa essential and conserved regulator of store-operated Ca2+ channel function.
Regulatory Status: RUO
Immunogen: Synthetized peptide (C-terminal cytoplasmic part of STIM1).
Species Reactivity: Human, Mouse, Rat
Application: Immunoprecipitation
Recommended dilution: 1 µg/ml
Positive control: RBL rat basophilic leukemia cell line
Sample preparation: Resuspend approx. 50 mil. cells in 1 ml cold Lysis buffer (1% lauryl maltoside in 20 mM Tris/Cl, 100 mM NaCl pH 8.2, 50 mM NaF including Protease inhibitor Cocktail). Incubate 60 min on ice. Centrifuge to remove cell debris. Mix lysate with non-reducing/reducing Laemmli SDS-PAGE sample buffer. Application note: Both reducing and non-reducing conditions
Immunohistochemistry (paraffin sections)
Recommended dilution: 5 µg/ml
Immunocytochemistry
Staining technique: methanol-aceton fixation
Positive control: HeLa human cervix carcinoma cell line
Purity: > 95% (by SDS-PAGE)
Purification: Purified from hybridoma culture supernatant by protein-A affinity chromatography.
Concentration: 1 mg/ml
Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability: Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Expiration: See vial label
Lot Number: See vial label
Background: 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.
References:


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