

## Anti-ORAI3 Monoclonal Antibody [2H2G9]

Catalog Number: M09399

### About ORAI3

Antigen stimulation of immune cells triggers  $\text{Ca}^{++}$  entry through  $\text{Ca}^{++}$  release-activated  $\text{Ca}^{++}$  (CRAC) channels. ORAI3 is one of two mammalian homologs to ORAI1, a recently identified four-transmembrane spanning protein that is an essential component of CRAC. All three homologs have been shown to function as  $\text{Ca}^{++}$  plasma membrane channels gated through interactions with STIM1, the store-activated endoplasmic reticulum  $\text{Ca}^{++}$  sensor. However, ORAI3 channels failed to produce detectable  $\text{Ca}^{++}$  selective currents in cells co-transfected with ORAI3 and STIM1, indicating that ORAI3 channels undergo a lesser degree of depotentiation than ORAI1 or ORAI2.  $\text{Na}^{+}$  currents through ORAI1, 2 and 3 channels were equally inhibited by extracellular  $\text{Ca}^{++}$ , indicating that each have similar affinities for  $\text{Ca}^{++}$  within the selectivity filter. This antibody is predicted to have no cross-reactivity to ORAI1 or ORAI2. Larger molecular weight bands are sometimes seen in SDS-PAGE; these may represent post-translationally modified ORAI 3.

### Overview

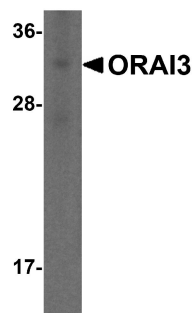
Product Name	Anti-ORAI3 Monoclonal Antibody [2H2G9]
Reactive Species	Human, Rat
Description	Boster Bio Anti-ORAI3 Monoclonal Antibody [2H2G9] (Catalog # M09399). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Rat.
Application	ELISA, IF, IHC-P, WB
Clonality	Monoclonal Clone: 2H2G9
Formulation	ORAI3 Monoclonal Antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	ORAI3 monoclonal antibody can be stored at $-20^{\circ}\text{C}$ , stable for one year.
Host	Mouse
Uniprot ID	Q9BRQ5

### Technical Details

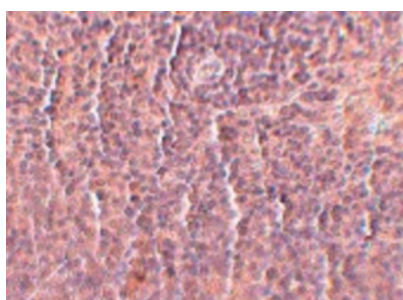
Immunogen	A 19 amino acid synthetic peptide from near the carboxy terminus of human ORAI3.
Predicted Reactive Species	Mouse, Rat
Cross Reactivity	beta-Actin antibody is human, mouse, rat, rabbit, chicken, zebrafish and drosophila reactive.
Isotype	IgG2a
Form	Liquid
Concentration	1 mg/mL

Purification	ORAI3 Monoclonal Antibody is immunoaffinity chromatography purified IgG.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>ORAI3 antibody can be used for detection of ORAI3 by Western blot at 1 ug/mL. Antibody can also be used for immunohistochemistry starting at 2.5 ug/mL. For immunofluorescence start at 5 ug/mL.</p> <p>Antibody validated: Western Blot in rat samples; Immunohistochemistry in rat samples and Immunofluorescence in human and rat samples. All other applications and species not yet tested.</p> <p>Optimal dilutions for each application should be determined by the researcher.</p>

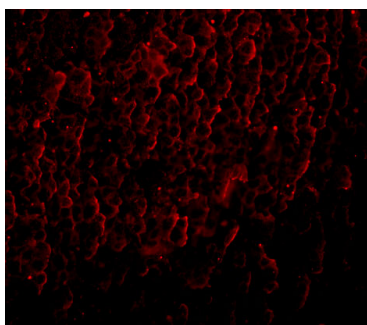
## Anti-ORAI3 Monoclonal Antibody [2H2G9] (M09399) Images



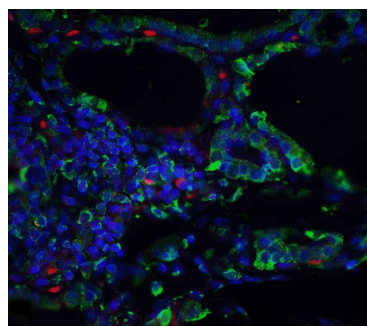
Western blot analysis of ORAI3 in rat spleen lysate with ORAI3 antibody at 1 ug/mL.



Immunohistochemistry of ORAI3 in rat spleen tissue with ORAI3 antibody at 2.5 ug/mL.



Immunofluorescence of ORAI3 in rat spleen tissue with ORAI3 antibody at 5 ug/mL.



Immunofluorescence of ORAI3 in human spleen tissue with ORAI3 antibody at 5 ug/mL.

Green: ORAI3 antibody  
Red: Phylloidin staining  
Blue: DAPI staining

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