

## Anti-Orai1 Antibody

Catalog Number: PA1857

### About ORAI1

ORAI1 (ORAI calcium release-activated calcium modulator 1), also known as CRACM1, TMEM142A, Calcium release-activated calcium channel protein 1, Protein orai-1, Transmembrane protein 142A, FLJ14466, is a calcium selective ion channel that in humans is encoded by the ORAI1 gene. Orai1 channels play an important role in the activation of T-lymphocytes. The loss of function mutation of Orai1 causes severe combined immunodeficiency (SCID) in humans. The mammalian orai family has two additional homologs, orai2 and orai3. Orai proteins share no homology with any other ion channel family of any other known proteins. They have 4 transmembrane domains and form tetramers. Prakriya et al. (2006) showed that ORAI1 is a PM protein, and that CRAC channel function is sensitive to mutation of 2 conserved acidic residues in the transmembrane segments. Glu106-to-asp (E106D) and glu190-to-gln (E190Q) substitutions in transmembrane helices 1 and 3, respectively, diminished calcium ion influx, increased current carried by monovalent cations, and rendered the channel permeable to cesium ion. Prakriya et al. (2006) showed that ORAI1 is a PM protein, and that CRAC channel function is sensitive to mutation of 2 conserved acidic residues in the transmembrane segments.

### Overview

Product Name	Anti-Orai1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Orai1 Antibody catalog # PA1857. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q96D31

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Orai1, different from the related rat and mouse sequences by two amino acids.
Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins

Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
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>Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat</p>

## Anti-Orai1 Antibody (PA1857) Images



Anti-Orai1 antibody, PA1857, Western blotting  
All lanes: Anti Orai1 (PA1857) at 0.5ug/ml  
WB: SKOV Whole Cell Lysate at 40ug  
Predicted bind size: 33KD  
Observed bind size: 50KD

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