

Anti-Orai1 Antibody Picoband® Fluoro594 Conjugated

Catalog Number: PA1857-Fluoro594

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 Picoband® Fluoro594 Conjugated
Reactive Species	Human, Mouse, Rat
Application	Flow Cytometry
Clonality	Polyclonal
Formulation	Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na ₂ HPO ₄ , 0.02% Na ₃ .
Storage Instructions	At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light.
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.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5 mg/mL
Purification	Immunogen affinity purified.

Conjugate	Fluoro594 Excitation Wavelength: 593 nm Emission Wavelength: 618 nm
Suggested Dilutions	Flow Cytometry, Optimal dilutions should be determined by end users.

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