Datasheet for ABIN7043410

anti-ORAI1 antibody (Extracellular) (Biotin)

2 Images

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Overview

Quantity:	50 µg
Target:	ORAI1
Binding Specificity:	Extracellular
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ORAI1 antibody is conjugated to Biotin
Application:	Western Blotting (WB), Flow Cytometry (FACS)

Product Details

Purpose:	A Mouse Monoclonal Antibody to Human Orai1 Channel Conjugated to Biotin
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: Synthetic mapping to an extracellular sequence of human Orai1
Clone:	3F11-D10-B9
Isotype:	IgM
Specificity:	Extracellular
Cross-Reactivity (Details):	Recognizes only human Orai1.
Predicted Reactivity:	Recognizes Orai1 from human samples only
Characteristics:	Mouse Anti-Human Orai1 (extracellular) Antibody (ABIN7043409 and ABIN7044554) is a highly specific monoclonal antibody directed against an extracellular epitope of the human Orai1

Product Details

	channel. The antibody can be used in western blot, immunocytochemical and indirect flow cytometry applications and was designed to recognize Orai1 from human samples only. \nMouse Anti-Human Orai1 (extracellular)-Biotin Antibody (ABIN7043409 and ABIN7044554)-B) is directly labeled with biotin. Strepavidin tagged with HRP or with a fluorescent probe can then be used to detect the protein. The biotin/strepavidin system is ideal for minimizing cross-reactivity when same species antibodies are simultaneously used. Mouse Anti-Human Orai1 (extracellular)-Biotin Antibody has been tested in western blot and direct flow cytometry applications and is specially suited to experiments requiring simultaneous labeling of different markers.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	ORAI1
Alternative Name:	ORAI1 (ORAI1 Products)
Background:	TMEM142A, CRACM1, Calcium release-activated calcium channel protein 1,Cytosolic calcium (Ca2+) has long been known to act as a key second messenger in many intracellular pathways including synaptic transmission, muscle contraction, hormonal secretion, cell growth and proliferation.1,2 The mechanism controlling intracellular Ca2+ level influx either by the calcium-release-activated Ca2+ channels (CRAC), or from intracellular stores, has become of great interest.Recently, several key players of the store operated complex have been identified3. Orai1 (also known as CRACM1) acts as the store operated Ca2+ channel (SOC) and STIM1, which acts as the endoplasmic reticulum Ca2+ sensor3,4. The formation of functional channels requires the presence of both Orai1 and STIM1 proteins working as a complex and involves the co-clustering of Orai1 on the plasma membrane with STIM1 on the endoplasmic reticulum4-6. TRPC1, a member of the transient receptor potential family was also suggested to act as a player in the SOC complex7. In T-cells, Ca2+ entry following activation by antigen-receptor engagement occurs solely through CRAC channels where Orai1 constitutes the pore forming subunit3,8.Orai1 is a plasma membrane protein with four potential transmembrane domains and intracellular N- and C-terminus. In addition, two mammalian homologs to Orai1 have been identified, Orai2 and Orai33,9. All three, Orai1 Orai2 and Orai3, are capable of forming store operated channels with different magnitudes9. Alternative names: Orai1, TMEM142A, CRACM1, Calcium release-activated calcium channel protein 1

Target Details

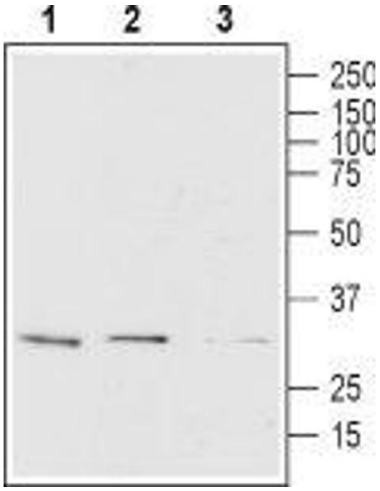
Gene ID:	84876
NCBI Accession:	NM_032790
UniProt:	Q63633
Pathways:	TCR Signaling, BCR Signaling

Application Details

Application Notes:	Antigen preadsorption control: NA Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A Application Dilutions Western blot wb: 1:500
Restrictions:	For Research Use only

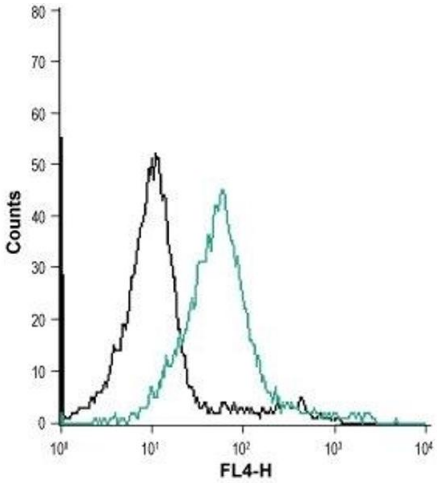
Handling

Format:	Lyophilized
Reconstitution:	Recosntitute with double distilled water (DDW) to a concentration of 1.0 mg/mL.
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 1 % BSA with 0.05 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).



Western Blotting

Image 1. Western blot analysis using Mouse Anti-Human Orai1 (extracellular)-Biotin Antibody (ABIN7043410), (1:500): - 1. Jurkat cells.2. HEK cells transfected with human Orai1.3. HEK cells transfected with control vector.



Flow Cytometry

Image 2. Cell surface detection of Orai1 in intact living Jurkat cells: (black line) Unstained cells. (green line) Cells + Mouse Anti-Human Orai1 (extracellular)-Biotin Antibody (ABIN7043410), (5-10 µg antibody/0.5-1 x 10^6 cells).