Datasheet for ABIN7043114

anti-EFCAB4B antibody (Intracellular)

1 Image

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Overview

Quantity:	25 µL
Target:	EFCAB4B
Binding Specificity:	AA 245-258, Intracellular
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This EFCAB4B antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to CRAC Channel Regulator 2A
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)KSEKEQFLLKDTER, corresponding to amino acid residues 245-258 of human CRACR2A
Isotype:	IgG
Specificity:	Intracellular
Cross-Reactivity:	Human, Rat
Predicted Reactivity:	Rat - 13,14 amino acid residues identical
Characteristics:	Anti-CRACR2A (EFCAB4B) Antibody is directed against an epitope of the human CRAC channel regulator 2A. Anti-CRACR2A (EFCAB4B) Antibody (ABIN7043114, ABIN7044115 and

Product Details

	ABIN7044116) can be used in western blot analysis. It has been designed to recognize CRAC channel regulator 2A from rat and human samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	EFCAB4B
Alternative Name:	CRACR2A (EFCAB4B Products)
Background:	CRAC channel regulator 2A, Calcium release-activated calcium channel regulator 2A, EF-hand calcium-binding domain-containing protein 4B, EFC4B,Calcium is a vital ion for the functioning of many intracellular processes. When Ca2+ stored in the endoplasmic reticulum is depleted, there is an activation of store-operated channels that results in the influx of Ca2+ from outside the cell. In non-excitable cells and especially in immune cells, most of this influx is carried out by calcium release activated calcium channels also known as "CRACs"1.Mediation of signals from the ER to CRACs and activation of the CRAC channel is conducted by two modulators that physically cluster with the CRAC channel known as Orai1 and STIM1. STIM1 is a single transmembrane segment protein that has a long C-terminal cytoplasmic region and an N-terminus which detects ER Ca2+ depletion. Orai1 is a macromolecular complex with linkers of varying lengths between the ER and plasma membranes.Novel findings suggest the existence of a complex comprised of Orai1, STIM1 and additional proteins. One of these proteins is an EF-hand protein named CRACR2A which regulates Orai-STIM interaction. An EF-hand is a structural domain found in Ca2+ binding proteins consisting of two alpha helices linked by a short loop region.CRACR2A interacts with the cytoplasmic regions of both Orai1 and STIM1 thus creating a tertiary complex. Under high concentrations of Ca2+, CRACR2A caused a dissociation of Orai1 and STIM1 and a mutated CRACR2A was found, in one study, to cause elevated Ca2+ levels that caused cell death in T cells2.Further research is required to fully determine the activation and regulation mechanisms of CRACs and this can be performed by better understanding CRACR2A and its binding proteins. Alternative names: CRACR2A (EFCAB4B), CRAC channel regulator 2A, Calcium release-activated calcium channel regulator 2A, EF-hand calcium-binding domain-containing protein 4B, EFC4B
Gene ID:	84766
NCBI Accession:	NM_032680

Target Details

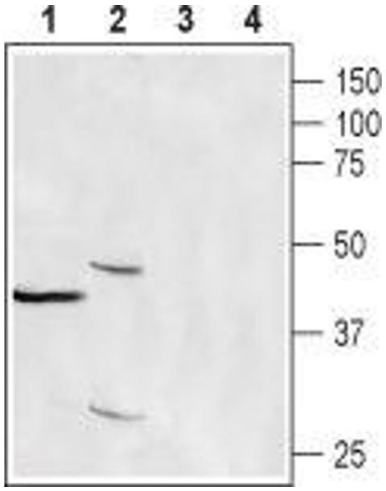
UniProt:	Q9BSW2

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A Application Dilutions Western blot wb: 1:400
Comment:	Negative Control: (ABIN7235259) Blocking Peptide: (ABIN7235259)
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
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 of human T cell leukemia (Jurkat) (lanes 1 and 3) and rat stomach (lanes 2 and 4) lysates: - 1,2. Anti-CRACR2A (EFCAB4B) Antibody (ABIN7043114, ABIN7044115 and ABIN7044116), (1:400).3,4. Anti-CRACR2A (EFCAB4B) Antibody, preincubated with CRACR2A/EFCAB4B Blocking Peptide (#BLP-CC324).