Nature Biosciences

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CRACR2A Mouse mAb[2N7W]

Cat NO. :A72716

Information:

Applications	Reactivity:	UniProt ID:	MW(kDa)	Host	Isotype	Size
WB,ICC/IF	H	Q9BSW2	80kda	Mouse	IgG	100ul,200ul

Applications detail:

Application	Dilution
WB	1:1000-2000
ICC/IF	1:100
The optimal dilutions should be determined by the end user	

Conjugate:

UnConjugate

Form:

Liquid

sensitivity:

Endogenous

Purification:

Protein A purification

Specificity:

Antibody is produced by immunizing animals with a synthetic peptide of human CRACR2A.

Storage buffer and conditions:

Antibody store in 10 mM PBS, 0.5mg/ml BSA, 50% glycerol（buffer）.

Shipped at 4°C. Store at-20°C or -80°C.

Products are valid for one natural year of receipt.Avoid repeated freeze / thaw cycles.

Tissue specificity:

[Isoform 1]: Expressed in the Jurkat T-cell line..,[Isoform 2]: Expressed in endothelial cells (PubMed:25475730).

Expressed in Weibel-Palade bodies (which are P-selectin/SELP negative) in endothelial

Subcellular location:

[Isoform 1]: Cytoplasm.,[Isoform 2]: Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center. Cell membrane. Golgi apparatus membrane. Golgi apparatus, trans-Golgi network membrane.

Function:

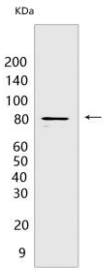
Introduction: **WB:** Western Blot **IP:** Immunoprecipitation **IHC:** Immunohistochemistry **ChIP:** Chromatin Immunoprecipitation **ICC/IF:** Immunocytochemistry/ Immunofluorescence **F:** Flow Cytometry

Cross Reactivity: **H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Hr:** horse

[Isoform 1]: Ca(2+)-binding protein that plays a key role in store-operated Ca(2+) entry (SOCE) in T-cells by regulating CRAC channel activation. Acts as a cytoplasmic calcium-sensor that facilitates the clustering of ORAI1 and STIM1 at the junctional regions between the plasma membrane and the endoplasmic reticulum upon low Ca(2+) concentration. It thereby regulates CRAC channel activation, including translocation and clustering of ORAI1 and STIM1. Upon increase of cytoplasmic Ca(2+) resulting from opening of CRAC channels, dissociates from ORAI1 and STIM1, thereby destabilizing the ORAI1-STIM1 complex.., [Isoform 2]: Rab GTPase that mediates the trafficking of Weibel-Palade bodies (WPBs) to microtubule organizing center (MTOC) in endothelial cells in response to acute inflammatory stimuli (PubMed:31092558). During histamine (but not thrombin) stimulation of endothelial cells, the dynein-bound form induces retrograde transport of a subset of WPBs along microtubules to the MTOC in a Ca(2+)-independent manner and its GTPase activity is essential for this function (PubMed:31092558). Ca(2+)-regulated dynein adapter protein that activates dynein-mediated transport and dynein-dynactin motility on microtubules and regulates endosomal trafficking of CD47 (PubMed:30814157). Acts as an intracellular signaling module bridging two important T-cell receptor (TCR) signaling pathways, Ca(2+)-NFAT and JNK, to affect T-cell activation (PubMed:27016526). In resting T-cells, is predominantly localized near TGN network in a GTP-bound form, upon TCR stimulation, localizes at the immunological synapse via interaction with VAV1 to activate downstream Ca(2+)-NFAT and JNK signaling pathways (PubMed:27016526). Plays a role in T-helper 1 (Th1) cell differentiation and T-helper 17 (Th17) cell effector function (PubMed:29987160). Plays a role in store-operated Ca(2+) entry (SOCE) in T-cells by regulating CRAC channel activation (PubMed:27016526)..

Validation Data：

CRACR2A Mouse mAb[2N7W] Images



Western blot（SDS PAGE） analysis of extracts from HEK-293 cells.Using CRACR2A Mouse mAb IgG [2N7W] at dilution of 1:1000 incubated at 4℃ over night.

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IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 1% w/v Milk, 1X TBST at 4°C overnight.