

**EFCAB4B Antibody**  
**Catalog # ASC11232****Specification**

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**EFCAB4B Antibody - Product Information**

Application	WB, IHC-P, IF, E
Primary Accession	<a href="#">Q9BSW2</a>
Other Accession	<a href="#">NP_001138430</a> , <a href="#">84766</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	EFCAB4B antibody can be used for detection of EFCAB4B by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 10 µg/mL. For immunofluorescence start at 20 µg/mL.

**EFCAB4B Antibody - Additional Information**Gene ID **84766****Target/Specificity**

EFCAB4B antibody was raised against a 14 amino acid synthetic peptide near the carboxy terminus of human EFCAB4B.<br><br>The immunogen is located within amino acids 640 - 690 of EFCAB4B.

**Reconstitution & Storage**

EFCAB4B antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

EFCAB4B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**EFCAB4B Antibody - Protein Information****Name** CRACR2A ([HGNC:28657](#))**Function**

[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.

**Cellular Location**

[Isoform 1]: Cytoplasm

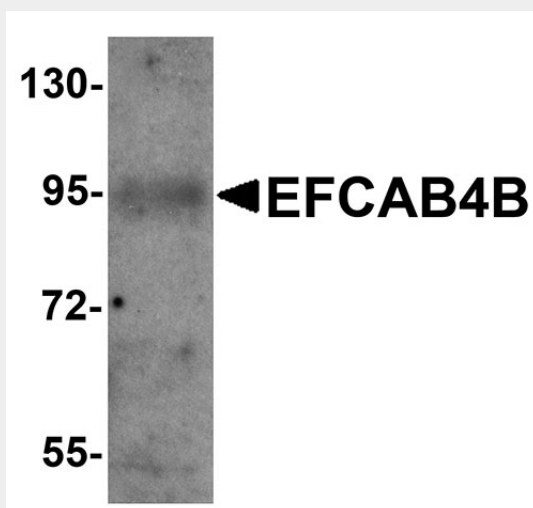
**Tissue Location**

[Isoform 1]: Expressed in the Jurkat T-cell line.

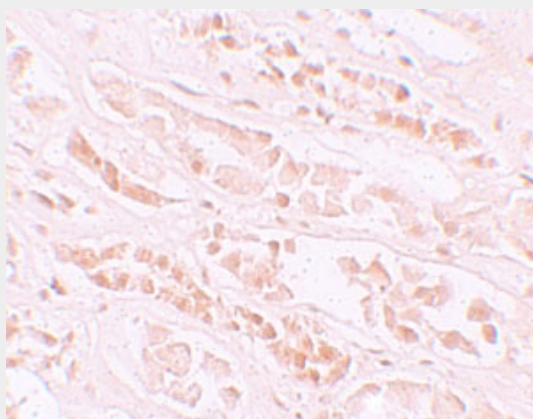
**EFCAB4B Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

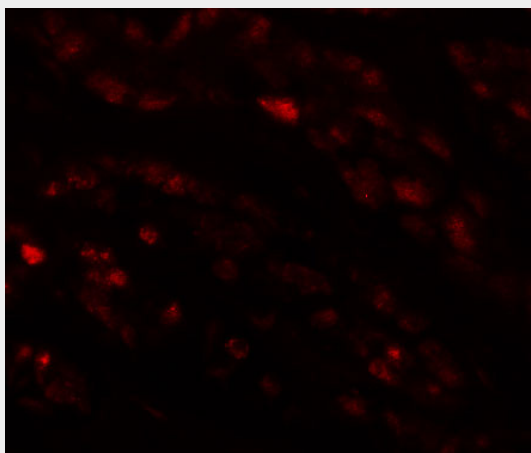
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**EFCAB4B Antibody - Images**

Western blot analysis of EFCAB4B in mouse kidney tissue lysate with EFCAB4B antibody at 1  $\mu$ g/mL.



Immunohistochemistry of EFCAB4B in human kidney tissue with EFCAB4B antibody at 10 µg/mL.



Immunofluorescence of EFCAB4B in human kidney tissue with EFCAB4B antibody at 20 µg/mL.

### **EFCAB4B Antibody - Background**

**EFCAB4B Antibody:** EFCAB4B, also known as Calcium release-activated calcium channel regulator 2A, is a novel  $\text{Ca}^{2+}$ -binding EF-hand protein that is thought to play a key role in store-operated  $\text{Ca}^{2+}$  entry in T-cells by regulating CRAC channel activation. EFCAB4B acts as a cytoplasmic calcium-sensor that forms a complex with ORAI1 and STIM1 at the junctional regions between the plasma membrane and the endoplasmic reticulum upon low  $\text{Ca}^{2+}$  concentration. A closely related protein, EFCAB4A, is likely to play a similar role as EFCAB4B, but the detailed function of EFCAB4A is still under investigation.

### **EFCAB4B Antibody - References**

Srikanth S, Jung HJ, Kim KD, et al. A novel EF-hand protein, CRACR2A, is a cytosolic  $\text{Ca}^{2+}$  sensor that stabilizes CRAC channels in T cells. *Nat. Cell. Biol.* 2010; 12:436-46.  
Srikanth S, Jung HJ, Ribalet B, et al. The intracellular loop of Orail plays a central role in fast inactivation of  $\text{Ca}^{2+}$  release-activated  $\text{Ca}^{2+}$  channels. *J. Biol. Chem.* 2010; 285:5066-75.  
Maruyama K, Mikawa T, and Ebashi S. Detection of calcium binding proteins by  $^{45}\text{Ca}$  autoradiography on nitrocellulose membrane after sodium dodecyl sulfate gel electrophoresis. *J. Biochem.* 1984; 95:511-9.