

ORAI3 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17188a

Specification

ORAI3 Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	Q9BRQ5
Other Accession	NP_689501.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	31499
Antigen Region	1-30

ORAI3 Antibody (N-term) - Additional Information

Gene ID 93129

Other Names

Protein orai-3, Transmembrane protein 142C, ORAI3, TMEM142C

Target/Specificity

This ORAI3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human ORAI3.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ORAI3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ORAI3 Antibody (N-term) - Protein Information

Name ORAI3

Synonyms TMEM142C

Function Pore-forming subunit of two major inward rectifying Ca^{2+} channels at the plasma membrane: Ca^{2+} release-activated Ca^{2+} (CRAC) channels and arachidonate-regulated Ca^{2+} -selective (ARC) channels (PubMed:[16807233](#), PubMed:[17442569](#), PubMed:[19182790](#), PubMed:[19622606](#), PubMed:[19706554](#), PubMed:[20354224](#), PubMed:[32415068](#)). Assembles with ORAI1 and ORAI2 to form hexameric CRAC channels that mediate Ca^{2+} influx upon depletion of endoplasmic reticulum Ca^{2+} store and channel activation by Ca^{2+} sensor STIM1, a process known as store-operated Ca^{2+} entry (SOCE). Various pore subunit combinations may account for distinct CRAC channel spatiotemporal and cell-type specific dynamics. ORAI1 mainly contributes to the generation of Ca^{2+} plateaus involved in sustained Ca^{2+} entry and is dispensable for cytosolic Ca^{2+} oscillations, whereas ORAI2 and ORAI3 generate oscillatory patterns. CRAC channels assemble in Ca^{2+} signaling microdomains where Ca^{2+} influx is coupled to calmodulin and calcineurin signaling and activation of NFAT transcription factors recruited to ORAI1 via AKAP5. CRAC channels are the main pathway for Ca^{2+} influx in T cells and promote the immune response to pathogens by activating NFAT-dependent cytokine and chemokine transcription (PubMed:[16807233](#), PubMed:[17442569](#), PubMed:[19182790](#), PubMed:[19706554](#), PubMed:[20354224](#), PubMed:[32415068](#)). Assembles with ORAI1 to form channels that mediate store-independent Ca^{2+} influx in response to inflammatory metabolites arachidonate or its derivative leukotriene C4, termed ARC and LRC channels respectively (PubMed:[19622606](#), PubMed:[32415068](#)).

Cellular Location

Cell membrane; Multi-pass membrane protein. Note=Colocalizes with STIM1 upon store depletion.

Tissue Location

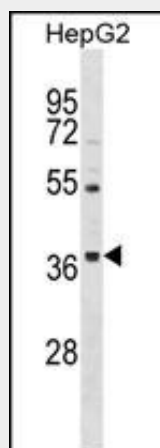
Expressed in both naive and effector T helper cells with higher levels in effector cells.

ORAI3 Antibody (N-term) - 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](#)

ORAI3 Antibody (N-term) - Images



ORAI3 Antibody (N-term) (Cat. #AP17188a) western blot analysis in HepG2 cell line lysates (35ug/lane). This demonstrates the ORAI3 antibody detected the ORAI3 protein (arrow).

ORAI3 Antibody (N-term) - Background

Key regulator or component of store-operated Ca^{2+} channel and transcription factor NFAT nuclear import (By similarity).

ORAI3 Antibody (N-term) - References

Motiani, R.K., et al. J. Biol. Chem. 285(25):19173-19183(2010)
Bogeski, I., et al. Sci Signal 3 (115), RA24 (2010) :
Schindl, R., et al. Proc. Natl. Acad. Sci. U.S.A. 106(46):19623-19628(2009)
Lee, K.P., et al. Proc. Natl. Acad. Sci. U.S.A. 106(34):14687-14692(2009)
Frischauf, I., et al. J. Biol. Chem. 284(32):21696-21706(2009)