10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ORAI3 Antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI15098

Product Information

Application	WB
Primary Accession	Q9BRQ5
Other Accession	NM_152288, NP_689501
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Bovine
Predicted	Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31499

Additional Information

Gene ID	93129
Alias Symbol	MGC13024, TMEM142C
Other Names	Protein orai-3, Transmembrane protein 142C, ORAI3, TMEM142C
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-ORAI3 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	ORAI3 Antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

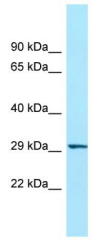
Name	ORAI3
Synonyms	TMEM142C
Function	Pore-forming subunit of two major inward rectifying Ca(2+) channels at the plasma membrane: Ca(2+) release-activated Ca(2+) (CRAC) channels and arachidonate-regulated Ca(2+)-selective (ARC) channels (PubMed:16807233, PubMed:17442569, PubMed:19182790, PubMed:19622606, 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.

References

Feske S.,et al.Nature 441:179-185(2006).
Srikanth S.,et al.Nat. Cell Biol. 12:436-446(2010).

Images



WB Suggested Anti-ORAI3 Antibody Titration: 1.0 µg/ml
Positive Control: Placenta

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.