

ORAI3 Antibody
Catalog # ASC10539**Specification**

ORAI3 Antibody - Product Information

Application	WB, ICC, IF
Primary Accession	Q9BRQ5
Other Accession	Q9BRQ5 , 74732916
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 32 kDa

Application Notes	Observed: 34 kDa KDa ORAI3 antibody can be used for detection of ORAI3 by Western blot at 2 - 4 µg/mL. Antibody can also be used for immunocytochemistry starting at 5 µg/mL. For immunofluorescence start at 10 µg/mL.
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ORAI3 Antibody - Additional Information

Gene ID **93129**

Other Names

ORAI3 Antibody: TMEM142C, TMEM142C, Protein orai-3, Transmembrane protein 142C, ORAI calcium release-activated calcium modulator 3

Target/Specificity

ORAI3; ORAI3 antibody is predicted to have no cross-reactivity to ORAI1 or ORAI2.

Reconstitution & Storage

ORAI3 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

ORAI3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ORAI3 Antibody - Protein Information

Name ORAI3

Synonyms TMEM142C

Function

Ca(2+) release-activated Ca(2+)-like (CRAC-like) channel subunit which mediates Ca(2+) influx and increase in Ca(2+)-selective current by synergy with the Ca(2+) sensor, STIM1.

Cellular Location

Cell membrane; Multi-pass membrane protein

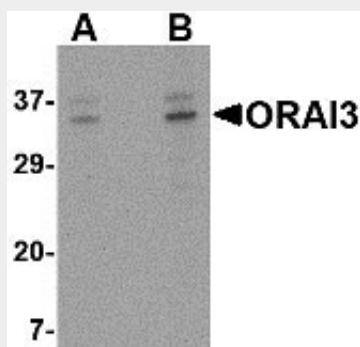
Tissue Location

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

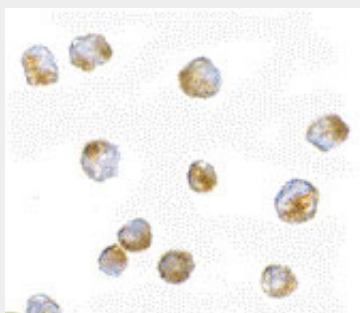
ORAI3 Antibody - Protocols

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

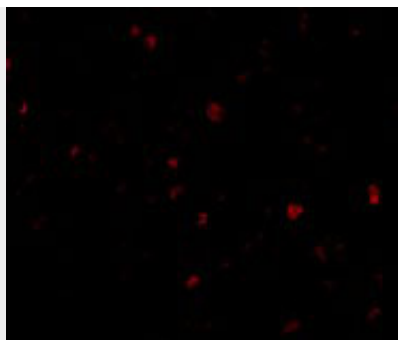
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ORAI3 Antibody - Images

Western blot analysis of ORAI3 in A20 cell lysate with ORAI3 antibody at (A) 2 and (B) 4 μ g/mL.



Immunocytochemistry of ORAI3 in A20 cells with ORAI3 antibody at 5 μ g/mL.



Immunofluorescence of ORAI3 in A20 cells with ORAI3 antibody at 10 µg/mL.

ORAI3 Antibody - Background

ORAI3 Antibody: Antigen stimulation of immune cells triggers Ca^{++} entry through Ca^{++} release-activated Ca^{++} (CRAC) channels. ORAI3 is one of two mammalian homologs to ORAI1, a recently identified four-transmembrane spanning protein that is an essential component of CRAC. All three homologs have been shown to function as Ca^{++} plasma membrane channels gated through interactions with STIM1, the store-activated endoplasmic reticulum Ca^{++} sensor. However, ORAI3 channels failed to produce detectable Ca^{++} selective currents in cells co-transfected with ORAI3 and STIM1, indicating that ORAI3 channels undergo a lesser degree of depotentiation than ORAI1 or ORAI2. Na^{+} currents through ORAI1, 2 and 3 channels were equally inhibited by extracellular Ca^{++} , indicating that each have similar affinities for Ca^{++} within the selectivity filter.

ORAI3 Antibody - References

Lewis RS. Calcium signaling mechanisms in T lymphocytes. Annu. Rev. Immunol. 2001; 19:497-521.

Feske S, Gwack Y, Prakriya M, et al. A mutation in Orai1 causes immune deficiency by abrogating CRAC channel function. Nature 2006; 441:179-85.

Soboloff J, Spassova MA, Dziadek MA, et al. Calcium signals mediated by STIM and Orai proteins - a new paradigm in inter-organelle communication. Biochim. Biophys. Acta. 2006; 1763:1161-8.

Mercer JC, DeHaven WI, Smyth JT, et al. Large store-operated calcium selective currents due to co-expression of Orai1 or Orai2 with the intracellular calcium sensor, Stim1. J. Biol. Chem. 2006; 281:24979-90.