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# 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**<br>**Observed: 34 kDa KDa** |
| Application Notes | **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.** |

### 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℃ for three months and -20℃, 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

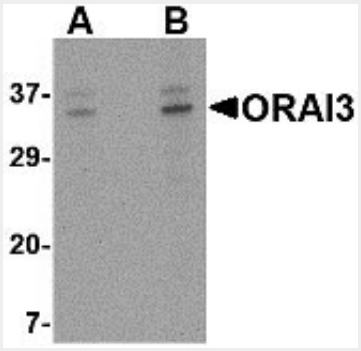
**Tissue Location**
Expressed in both naive and effector T helper cells with higher levels in effector cells.

## ORAI3 Antibody - Protocols

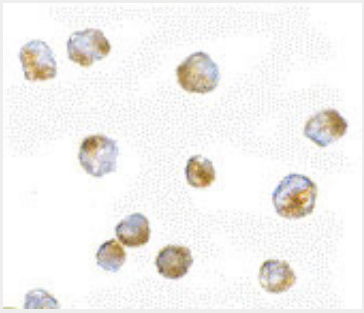
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## ORAI3 Antibody - Images

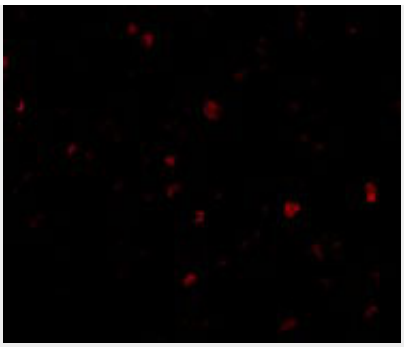



Western blot analysis of ORAI3 in A20 cell lysate with ORAI3 antibody at (A) 2 and (B) 4 µg/mL.



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

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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.