ORAI1 Antibody
Cat. No.: 4281

Western blot analysis of ORAI1 in human ovary tissue lysate with ORAI1 antibody at (A) 0.5, (B) 1 and (C) 2 μg/mL.

Immunohistochemistry of ORAI1 in human ovary tissue with ORAI1 antibody at 2.5 μg/ml.

Immunohistochemistry of ORAI1 in human spleen tissue with ORAI1 antibody at 2.5 μg/mL.

Immunofluorescence of ORAI1 in human ovary tissue with ORAI1 antibody at 20 μg/mL.
Red: ORAI1 Antibody (4281)
Blue: DAPI staining

Specifications

HOST SPECIES: Rabbit
**SPECIES REACTIVITY:** Human, Mouse

**HOMOLOGY:** Predicted species reactivity based on immunogen sequence: Rat: (93%), Chicken: (100%)

**IMMUNOGEN:** ORAI1 antibody was raised against a 16 amino acid synthetic peptide from near the carboxy terminus of human ORAI1.

The immunogen is located within the last 50 amino acids of ORAI1.

**TESTED APPLICATIONS:** ELISA, IF, IHC-P, WB

**APPLICATIONS:** ORAI1 antibody can be used for detection of ORAI1 by Western blot at 0.5 - 2 μg/mL. ORAI1 often migrates at a higher than expected molecular weight in SDS-PAGE. Antibody can also be used for immunohistochemistry starting at 2.5 μg/mL.

Antibody validated: Western Blot in human samples; Immunohistochemistry in human samples and Immunofluorescence in human samples. All other applications and species not yet tested.

**SPECIFICITY:** This antibody is predicted to have no cross-reactivity to ORAI2 or ORAI3.

**POSITIVE CONTROL:**
1) Cat. No. 1316 - Human Ovary Tissue Lysate
2) Cat. No. 11-201 - Human Ovary Tissue Slide
3) Cat. No. 10-901 - Human Spleen Tissue Slide

### Properties

**PURIFICATION:** ORAI1 Antibody is affinity chromatography purified via peptide column.

**CLONALITY:** Polyclonal

**ISOTYPE:** IgG

**CONJUGATE:** Unconjugated

**PHYSICAL STATE:** Liquid

**BUFFER:** ORAI1 Antibody is supplied in PBS containing 0.02% sodium azide.

**CONCENTRATION:** 1 mg/mL

**STORAGE CONDITIONS:** ORAI1 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.

### Additional Info

**OFFICIAL SYMBOL:** ORAI1

**ALTERNATE NAMES:** ORAI1 Antibody: IMD9, ORAT1, CRACM1, TMEM142A, Calcium release-activated calcium channel protein 1, Protein orai-1

**ACCESSION NO.:** Q96D31

**PROTEIN GI NO.:** 97180269
**Background and References**

| BACKGROUND: | ORAI1 Antibody: Antigen stimulation of immune cells triggers Ca++ entry through Ca++ release-activated Ca++ (CRAC) channels. ORAI1 is a recently identified four-transmembrane spanning protein that is an essential component of CRAC. A missense mutation in this protein in humans is the cause of one form of hereditary severe combined immune deficiency (SCID) which results in ablated T-cell Ca++ entry. It has been suggested that ORAI1 functions as a highly selective Ca++ plasma membrane channel that is gated through interactions with STIM1, the store-activated endoplasmic reticulum Ca++ sensor. |

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