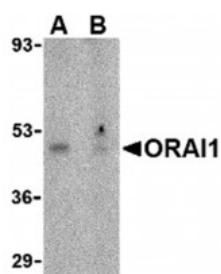


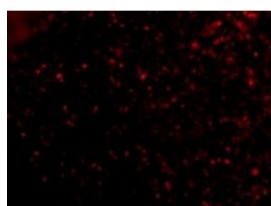


ORAI1 Antibody

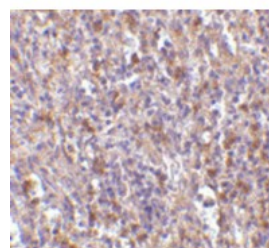
CATALOG NUMBER: 4041



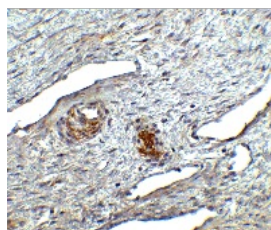
Western blot analysis of ORAI1 in human ovary tissue lysate with ORAI1 antibody at 1 ug/mL in the (A) absence or (B) presence of blocking peptide.



Immunofluorescence of ORAI1 in Human Spleen cells with ORAI1 antibody at 20 ug/mL.



Immunohistochemistry of ORAI1 in human spleen tissue with ORAI1 antibody at 10 ug/mL.



Immunohistochemistry of ORAI1 in human ovary tissue with ORAI1 antibody at 2.5 ug/mL.

Specifications	
SPECIES REACTIVITY:	Human, Mouse
TESTED APPLICATIONS:	ELISA, IF, IHC-P, WB
APPLICATIONS:	ORAI1 antibody can be used for detection of ORAI1 by Western blot at 1 ug/mL. Antibody can also be used for immunohistochemistry starting at 10 ug/mL. For immunofluorescence start at 20 ug/mL.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1316 - Human Ovary Tissue Lysate 2) Cat. No. 1306 - Human Spleen Tissue Lysate
PREDICTED MOLECULAR WEIGHT:	Predicted: 33 kDa Observed: 50 kDa
SPECIFICITY:	This antibody is predicted to have no cross-reactivity to ORAI2 or ORAI3.
IMMUNOGEN:	ORAI1 antibody was raised against an 18 amino acid synthetic peptide from near the amino terminus of human ORAI1. The immunogen is located within the first 50 amino acids of ORAI1.
HOST SPECIES:	Rabbit

Properties	
PURIFICATION:	ORAI1 Antibody is affinity chromatography purified via peptide column.
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.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info	
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
OFFICIAL SYMBOL:	ORAI1
GENE ID:	84876

Background	
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.
REFERENCES:	<p>1) Lewis RS. Calcium signaling mechanisms in T lymphocytes. Annu. Rev. Immunol. 2001; 19:497-521.</p> <p>2) 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.</p> <p>3) 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.</p>

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December 12, 2016