

ORAI1 (NT) antibody (pAb)

Rabbit Anti-Human/Mouse ORAI1 (NT)

Instruction Manual

Catalog Number	PK-AB718-4041
Synonyms	ORAI1 Antibody; Transmembrane protein 142A, TMEM142A, Calcium release-activated calcium channel protein 1
Description	Antigen stimulation of immune cells triggers Ca ²⁺ entry through Ca ²⁺ release-activated Ca ²⁺ (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 ²⁺ entry. It has been suggested that ORAI1 functions as a highly selective Ca ²⁺ plasma membrane channel that is gated through interactions with STIM1, the store-activated endoplasmic reticulum Ca ²⁺ sensor. ORAI1 often migrates at a higher than expected molecular weight in SDS-PAGE. This antibody is predicted to have no cross-reactivity to ORAI2 or ORAI3.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	ORAI1 antibody was raised in rabbits against an 18 amino acid peptide from near the amino terminus of human ORAI1.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse
Specificity	This antibody is predicted to have no cross-reactivity to ORAI2 or ORAI3.
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C 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.
Applications	E, WB, IHC, IF INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. ORAI1 antibody can be used for detection of ORAI1 by Western blot at 1 µg/mL. ORAI1 often migrates at a higher than expected molecular weight in SDS-PAGE. Antibody can also be used for immunohistochemistry starting at 10 µg/mL. For immunofluorescence start at 20 µg/mL.
Images	Available upon request.
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.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4041P; ORAI1 Peptide Cat.No. PK-AB718-1316; Human Ovary Tissue Lysate

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