ORAI3 (CT) antibody (pAb)

Rabbit Anti-Human/Mouse ORAI3 (CT)

PromoKine

Instruction Manual

Catalog Number	PK-AB718-4215
Synonyms	ORAI3 Antibody: Transmembrane protein 142C, TMEM142C, Calcium release-activated
Description	Antigen stimulation of immune cells triggers Ca^{2+} entry through Ca^{2+} release-activated Ca^{2+} (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^{2+} plasma membrane channels gated through interactions with STIM1, the store-activated endoplasmic reticulum Ca^{2+} sensor. However, ORAI3 channels failed to produce detectable Ca^{2+} 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^{2+}, indicating that each have similar affinities for Ca^{2+} within the selectivity filter. This antibody is predicted to have no cross-reactivity to ORAI1 or ORAI2.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	ORAI3 antibody was raised in rabbits against a 19 amino acid peptide from near the carboxy terminus of human ORAI3.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse
Specificity	
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, ICC, IF lNote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined indivudually.
	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.
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. 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.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4215P; ORAI3 Peptide Cat.No. PK-AB718-1288; A20 Cell Lysate

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