

ORAI2 (CT) antibody (pAb)

Rabbit Anti-Human/Mouse ORAI2

Instruction Manual

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| Catalog Number | PK-AB718-4111 |
| Synonyms | ORAI2 Antibody; Transmembrane protein 142B, TMEM142B, Calcium release-activated calcium channel protein 2 |
| Description | Antigen stimulation of immune cells triggers Ca ²⁺ entry through Ca ²⁺ release-activated Ca ²⁺ (CRAC) channels. ORAI2 is one of two mammalian homologs to ORAI1, a recently identified four-transmembrane spanning protein that is an essential component of CRAC. Like ORAI1, ORAI2 has been shown to function as a highly selective Ca ²⁺ plasma membrane channel that is gated through interactions with STIM1, the store-activated endoplasmic reticulum Ca ²⁺ sensor, although at a lesser efficacy than ORAI1. This antibody is predicted to have no cross-reactivity to ORAI1 or ORAI3. |
| Quantity | 100 µg |
| Source / Host | Rabbit |
| Immunogen | ORAI2 antibody was raised in rabbits against an 15 amino acid peptide from near the carboxy terminus of human ORAI2. |
| 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 INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. ORAI2 antibody can be used for detection of ORAI2 by Western blot at 1 - 4 µg/mL. Antibody can also be used for immunocytochemistry starting at 5 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. 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-AB718-4111P; ORAI2 Peptide Cat.No. PK-AB718-1205; Jurkat Cell Lysate |

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