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# ORAI3 Rabbit mAb

Catalog # AP76635

## Product Information

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|---|---|
| **Application** | WB, IHC-P |
| **Primary Accession** | Q9BRQ5 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Monoclonal Antibody |
| **Calculated MW** | 31499 |

## Additional Information

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|---|---|
| **Gene ID** | 93129 |
| **Other Names** | ORAI3 |
| **Dilution** | WB~~1/500-1/1000 IHC-P~~N/A |
| **Format** | Liquid |

## Protein Information

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|---|---|
| **Name** | ORAI3 |
| **Synonyms** | TMEM142C |
| **Function** | Pore-forming subunit of two major inward rectifying Ca(2+) channels at the plasma membrane: Ca(2+) release-activated Ca(2+) (CRAC) channels and arachidonate-regulated Ca(2+)-selective (ARC) channels (PubMed:16807233, PubMed:17442569, PubMed:19182790, PubMed:19622606, PubMed:19706554, PubMed:20354224, PubMed:32415068). Assembles with ORAI1 and ORAI2 to form hexameric CRAC channels that mediate Ca(2+) influx upon depletion of endoplasmic reticulum Ca(2+) store and channel activation by Ca(2+) sensor STIM1, a process known as store-operated Ca(2+) entry (SOCE). Various pore subunit combinations may account for distinct CRAC channel spatiotemporal and cell-type specific dynamics. ORAI1 mainly contributes to the generation of Ca(2+) plateaus involved in sustained Ca(2+) entry and is dispensable for cytosolic Ca(2+) oscillations, whereas ORAI2 and ORAI3 generate oscillatory patterns. CRAC channels assemble in Ca(2+) signaling microdomains where Ca(2+) influx is coupled to calmodulin and calcineurin signaling and activation of NFAT transcription factors recruited to ORAI1 via AKAP5. CRAC channels are the main pathway for Ca(2+) influx in T cells and promote the immune response to pathogens by activating NFAT-dependent cytokine and chemokine transcription (PubMed:16807233, PubMed:17442569, PubMed:19182790, PubMed:19706554, PubMed:20354224, PubMed:32415068). Assembles with ORAI1 to form |

channels that mediate store-independent Ca(2+) influx in response to inflammatory metabolites arachidonate or its derivative leukotriene C4, termed ARC and LRC channels respectively (PubMed:19622606, PubMed:32415068).

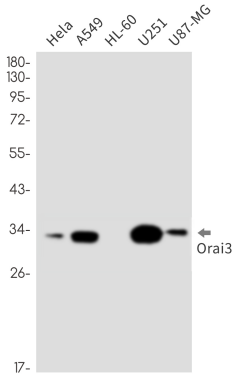
**Cellular Location**

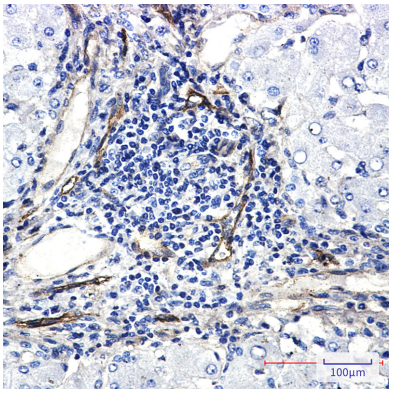
Cell membrane; Multi-pass membrane protein. Note=Colocalizes with STIM1 upon store depletion.

**Tissue Location**

Expressed in both naive and effector T helper cells with higher levels in effector cells.

## Images

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