

## Product datasheet for **TA328653**

### ORAI1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	FC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)KKQPGQPRPTSK, corresponding to amino acid residues 203-214 of human Orai1. 2nd extracellular loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	ORAI calcium release-activated calcium modulator 1
Database Link:	<a href="#">NP_116179</a> <a href="#">Entrez Gene 84876 Human</a> <a href="#">Q96D31</a>



[View online »](#)

**Background:**

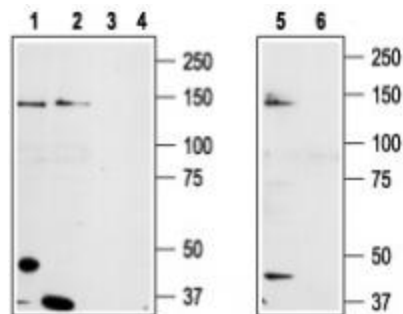
Cytosolic calcium (Ca<sup>2+</sup>) has long been known to act as a key second messenger in many intracellular pathways including synaptic transmission, muscle contraction, hormonal secretion, cell growth and proliferation. The mechanism controlling intracellular Ca<sup>2+</sup> level influx either by the calcium-release-activated Ca<sup>2+</sup> channels (CRAC), or from intracellular stores, has become of great interest. Recently, several key players of the store operated complex have been identified. Orai1 (also known as CRACM1) acts as the store operated calcium channel (SOC) and STIM1, which acts as the endoplasmic reticulum Ca<sup>2+</sup> sensor. The formation of functional channels by Orai1 requires the presence of both Orai1 and STIM1 proteins working as a complex that involves the co-clustering of Orai1 on the plasma membrane with STIM1 on the endoplasmic reticulum. TRPC1, a member of the transient receptor potential family was also suggested to act as a player in the SOC complex. In T-cells, Ca<sup>2+</sup> entry following activation by antigen-receptor engagement occurs solely through CRAC channels where Orai1 constitutes the pore forming subunit. Orai1 is a plasma membrane protein with four potential transmembrane domains and intracellular N- and C-terminus. In addition, two mammalian homologs to Orai1 have been identified; Orai2 and Orai3. All three, Orai1 Orai2 and Orai3, are capable of forming store operated channels with different magnitudes.

**Synonyms:**

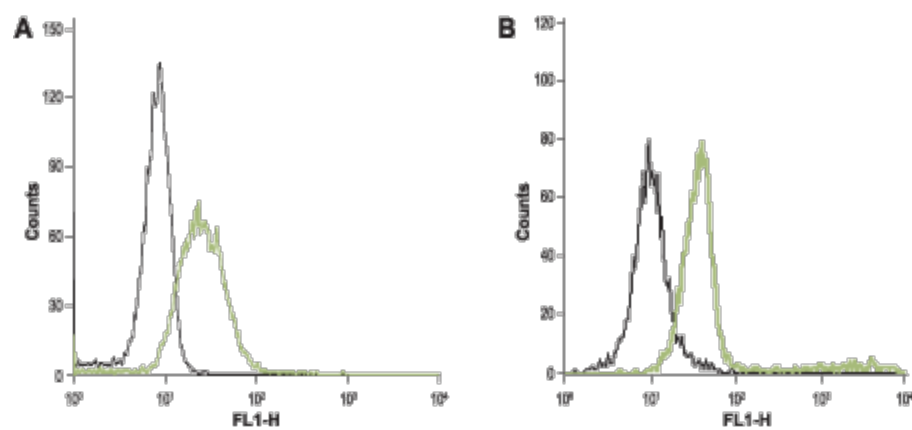
CRACM1; IMD9; ORAT1; TAM2; TMEM142A

**Protein Families:**

Transmembrane

**Product images:**

Western blot analysis of Jurkat (lanes 1, 2) and HL-60 (lanes 3, 4) cell lysates: 1, 3. Anti-Human Orai1 (extracellular) antibody, (1:200). 2, 4. Anti-Human Orai1 (extracellular) antibody, preincubated with the control peptide antigen.



Indirect flow cytometry analysis of intact HL-60 (A) and Jurkat cells (B).black line, Unstained cells.green line, Cells + Anti-Human Orai1 (extracellular) antibody, (5-10 ug antibody/0.5-1 x 10<sup>6</sup> cells).