

Datasheet: AHP1494

BATCH NUMBER 151093

Description:	RABBIT ANTI ORAI1 (C-TERMINAL)
Specificity:	ORAI1 (C-TERMINAL)
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			0.5 - 1ug/ml
Functional Assays			▪	

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.

Target Species

Human

Species Cross Reactivity

Reacts with: Rat, Mouse

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG - liquid

Antiserum Preparation Antiserum to human ORAI1 was raised by repeated immunisation of rabbits with highly purified antigen. Purified IgG was prepared from whole serum by affinity chromatography.

Buffer Solution Phosphate buffered saline

Preservative Stabilisers 0.02% Sodium Azide (NaN₃)

Approx. Protein Concentrations IgG concentration 1.0mg/ml

Immunogen A 16 amino acid peptide from near the carboxy terminus of human ORAI1.

External Database Links

UniProt:

[Q96D31](#) [Related reagents](#)

Entrez Gene:

[84876](#) ORAI1 [Related reagents](#)

Synonyms CRACM1, TMEM142A

RRID AB_2236468

Specificity

Rabbit anti Human ORAI1 antibody recognises human ORAI1, also known as Transmembrane protein 142A (TMEM142A), a 32.7 kDa multi-pass membrane protein belonging to the ORAI family.

Antigen stimulation of immune cells triggers Ca²⁺ entry through Ca²⁺ release-activated Ca²⁺ (CRAC) channels. CRAC channels are the main pathway for Ca²⁺ influx in T-cells and promote the immune response to pathogens by activating the transcription factor NFAT.

ORAI1 is a four- transmembrane spanning protein that is an essential component of CRAC. ORAI1 functions as a highly selective Ca²⁺ plasma membrane channel that is gated through interactions with STIM1, the store-activated endoplasmic reticulum Ca²⁺ sensor.

Defective ORAI1 in humans is the cause of one form of hereditary severe combined immune deficiency (SCID), which results in ablated T-cell Ca²⁺ entry.

Rabbit anti Human ORAI1 antibody (AHP1494) is not expected to cross react with either ORAI2 or ORAI3.

Western Blotting AHP1494 detects a band of approximately 49kDa in 49 cell lysates.

Further Reading

1. Feske, S., *et al.* (2006) A mutation in Orai1 causes immune deficiency by abrogating CRAC channel function. [Nature](#); 441:179-85
2. Soboloff, J. *et al.* (2006) Calcium signals mediated by STIM and Orai proteins--a new

paradigm in inter-organelle communication. [Biochim Biophys Acta. 1763 \(11\): 1161-8.](#)
3. Lewis, R.S. (2001) Calcium signaling mechanisms in T lymphocytes. [Annu Rev Immunol. 19: 497-521.](#)

Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/AHP1494 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)

Recommended Useful Reagents

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)
[TidyBlot WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M363945:200529'

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