

Datasheet: AHP1494

**BATCH NUMBER 151093**

<b>Description:</b>	RABBIT ANTI ORAI1 (C-TERMINAL)
<b>Specificity:</b>	ORAI1 (C-TERMINAL)
<b>Format:</b>	Purified
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	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](http://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.**

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	Reacts with: Rat, Mouse <b>N.B.</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.
<b>Product Form</b>	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.

<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.02% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/ml
<b>Immunogen</b>	A 16 amino acid peptide from near the carboxy terminus of human ORAI1.
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">Q96D31</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">84876</a> ORAI1 <a href="#">Related reagents</a>
<b>Synonyms</b>	CRACM1, TMEM142A
<b>RRID</b>	AB_2236468
<b>Specificity</b>	<p><b>Rabbit anti Human ORAI1 antibody</b> recognises human ORAI1, also known as Transmembrane protein 142A (TMEM142A), a 32.7 kDa multi-pass membrane protein belonging to the ORAI family.</p> <p>Antigen stimulation of immune cells triggers Ca<sup>2+</sup> entry through Ca<sup>2+</sup> release-activated Ca<sup>2+</sup> (CRAC) channels. CRAC channels are the main pathway for Ca<sup>2+</sup> influx in T-cells and promote the immune response to pathogens by activating the transcription factor NFAT.</p> <p>ORAI1 is a four- transmembrane spanning protein that is an essential component of CRAC. ORAI1 functions as a highly selective Ca<sup>2+</sup> plasma membrane channel that is gated through interactions with STIM1, the store-activated endoplasmic reticulum Ca<sup>2+</sup> sensor.</p> <p>Defective ORAI1 in humans is the cause of one form of hereditary severe combined immune deficiency (SCID), which results in ablated T-cell Ca<sup>2+</sup> entry.</p> <p>Rabbit anti Human ORAI1 antibody ( AHP1494) is not expected to cross react with either ORAI2 or ORAI3.</p>
<b>Western Blotting</b>	AHP1494 detects a band of approximately 49kDa in 49 cell lysates.
<b>Further Reading</b>	1. Feske, S., <i>et al.</i> (2006) A mutation in Orai1 causes immune deficiency by abrogating CRAC channel function. <a href="#">Nature; 441:179-85</a> 2. Soboloff, J. <i>et al.</i> (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.](#)

<b>Storage</b>	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.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/AHP1494">https://www.bio-rad-antibodies.com/SDS/AHP1494</a> 10040
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)  
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)  
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)  
Goat Anti Rabbit IgG (H/L) (STAR124...) [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](https://bio-rad-antibodies.com/datasheets)  
'M363945:200529'

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