

Datasheet: AHP1496

**BATCH NUMBER 157985**

|                      |                                |
|----------------------|--------------------------------|
| <b>Description:</b>  | RABBIT ANTI ORAI3 (N-TERMINAL) |
| <b>Specificity:</b>  | ORAI3 (N-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   | ▪   |    |                | 10ug/ml            |
| Immunohistology - Paraffin |     |    | ▪              |                    |
| ELISA                      |     |    | ▪              |                    |
| Immunoprecipitation        |     |    | ▪              |                    |
| Western Blotting           | ▪   |    |                | 1 - 2ug/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.

### 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 ORAI3 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 (NaN <sub>3</sub> )  |
| Approx. Protein Concentrations | IgG concentration 1.0mg/ml  |
| Immunogen                      | A 15 amino acid peptide from near the amino terminus of human ORAI3.  |
| External Database Links        | <p><b>UniProt:</b><br/> <a href="#">Q9BRQ5</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">93129</a>    ORAI3    <a href="#">Related reagents</a></p>   |
| Synonyms                       | TMEM142C  |
| RRID                           | AB_2157578  |
| Specificity                    | <p><b>Rabbit anti Human ORAI3 antibody</b> recognizes the N-terminal region of human ORAI3, also known as Transmembrane protein 142C (TMEM142C), a 31.5 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>ORAI3 is one of two mammalian homologs of ORAI1, a four- transmembrane spanning protein that is an essential component of CRAC channels. ORAI3, along with ORAI1 and ORAI2, functions as a Ca<sup>2+</sup> plasma membrane channel that is gated through interactions with STIM1, the store-activated endoplasmic reticulum Ca<sup>2+</sup> sensor. Studies indicate that ORAI3 channels undergo a lesser degree of depotentiation than ORAI1 or ORAI2.</p> <p>Rabbit anti Human ORAI3 antibody ( <b>AHP1496</b>) is not expected to cross react with either ORAI1 or ORAI2.</p> |
| Western Blotting               | AHP1496 detects a band of approximately 35kDa in A20 cell lysates.  |
| Further Reading                | <ol style="list-style-type: none"> <li>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></li> <li>2. Soboloff, J. <i>et al.</i> (2006) Calcium signals mediated by STIM and Orai proteins--a new paradigm in inter-organelle communication. <a href="#">Biochim Biophys Acta. 1763 (11): 1161-8.</a></li> <li>3. Mercer, J.C. <i>et al.</i> (2006) Large store-operated calcium selective currents due to co-expression of Orai1 or Orai2 with the intracellular calcium sensor, Stim1. <a href="#">J Biol Chem. 281 (34): 24979-90.</a></li> <li>4. Lewis, R.S. (2001) Calcium signaling mechanisms in T lymphocytes. <a href="#">Annu Rev</a></li> </ol>  |

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|--------------------------------------|---|
| <b>Storage</b>                       | Store at +4°C or at -20°C if preferred.<br>Storage in frost-free freezers is not recommended.<br>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:<br><a href="https://www.bio-rad-antibodies.com/SDS/AHP1496">https://www.bio-rad-antibodies.com/SDS/AHP1496</a><br>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

[TidyBlot WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

|                                  |   |                  |   |               |   |
|----------------------------------|---|------------------|---|---------------|---|
| <b>North &amp; South America</b> | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a> | <b>Worldwide</b> | Tel: +44 (0)1865 852 700<br>Fax: +44 (0)1865 852 739<br>Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a> | <b>Europe</b> | Tel: +49 (0) 89 8090 95 21<br>Fax: +49 (0) 89 8090 95 50<br>Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a> |
|----------------------------------|---|------------------|---|---------------|---|

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
'M363946:200529'

Printed on 19 Jan 2024