

Datasheet: AHP1496

Description:	RABBIT ANTI ORAI3 (N-TERMINAL)
Specificity:	ORAI3 (N-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	▪			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.
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 ₃)
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**

UniProt:

[Q9BRQ5](#) [Related reagents](#)

Entrez Gene:

[93129](#) ORAI3 [Related reagents](#)

Synonyms

TMEM142C

Specificity

Rabbit anti Human ORAI3 antibody 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.

Antigen stimulation of immune cells triggers Ca^{2+} entry through Ca^{2+} release-activated Ca^{2+} (CRAC) channels. CRAC channels are the main pathway for Ca^{2+} influx in T-cells and promote the immune response to pathogens by activating the transcription factor NFAT.

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^{2+} plasma membrane channel that is gated through interactions with STIM1, the store-activated endoplasmic reticulum Ca^{2+} sensor. Studies indicate that ORAI3 channels undergo a lesser degree of depotentiation than ORAI1 or ORAI2.

Rabbit anti Human ORAI3 antibody (AHP1496) is not expected to cross react with either ORAI1 or ORAI2.

Western Blotting

AHP1496 detects a band of approximately 35kDa in A20 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. Mercer, J.C. *et al.* (2006) Large store-operated calcium selective currents due to co-expression of Orai1 or Orai2 with the intracellular calcium sensor, Stim1. [J Biol Chem](#). 281 (34): 24979-90.
4. 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.

Shelf Life

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)
Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®549](#), [DyLight®649](#),
[DyLight®680](#), [DyLight®800](#)

Recommended Useful Reagents

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

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