

Datasheet: AHP1705

Description:	RABBIT ANTI HUMAN CD279 (C-TERMINAL)
Specificity:	CD279 (C-TERMINAL)
Other names:	PD-1
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
Immunohistology - Paraffin (1)	■			2.5ug/ml
Western Blotting	■			0.5 - 1.0ug/ml

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: Mouse N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Antiserum Preparation	Antisera to Human CD279 were raised by repeated immunisation of rabbits with highly purified antigen. Purified IgG 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 peptide corresponding to a 16 amino acid sequence from near the carboxy terminus of Human CD279.

**External Database
Links**

UniProt:

[Q15116](#) [Related reagents](#)

Entrez Gene:

[5133](#) PDCD1 [Related reagents](#)

Synonyms

PD1

Specificity

Rabbit anti Human CD279 antibody detects CD279, a co-stimulatory molecule also known as programmed cell death-1 (PD-1). CD279 is a single-pass type 1 membrane protein belonging to the CD28 family, and functions mainly as a negative regulator of T-cell activation. CD279 has two specific ligands; CD274 (PD-L1) and CD273 (PD-L2), and their interaction is key in the balance between stimulatory and inhibitory signals needed for effective immune responses to microbes and self-tolerance. CD279 is inducibly expressed by T-cells, B-cells, NK-T-cells and monocytes upon activation.

Loss of CD279 function has been associated with a number of autoimmune diseases, including rheumatoid arthritis, type I diabetes and ankylosing spondylitis. CD279 could be targeted therapeutically in the treatment of HIV infection to reduce T-cell exhaustion ([Freeman *et al.* 2006](#)).

**Histology Positive
Control Tissue**

Human brain tissue

Western Blotting

AHP1705 detects a band of approximately 45kDa in THP-1 cell lysate

Further Reading

1. Menke, J. *et al.* (2007) Programmed death 1 ligand (PD-L) 1 and PD-L2 limit autoimmune kidney disease: distinct roles. [J Immunol. 179: 7466-77.](#)
2. Ishida, Y. *et al.* (1992) Induced expression of PD-1, a novel member of the immunoglobulin gene superfamily, upon programmed cell death. [EMBO J. 11 \(11\): 3887-95.](#)
3. Zhong, X. *et al.* (2004) Suppression of expression and function of negative immune regulator PD-1 by certain pattern recognition and cytokine receptor signals associated with immune system danger. [Int. Immunol. 16:1181-8](#)
4. Nishimura, H. *et al.* (1999) Development of lupus-like autoimmune diseases by the disruption of the PD-1 gene encoding an ITIM motif-carrying immunoreceptor. [Immunity 11:141-51.](#)

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 (STAR54...) [HRP](#)

Recommended Useful Reagents

[HISTAR DETECTION SYSTEM \(STAR3000A\)](#)

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025C\)](#)

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

North & South America

Tel: +1 800 265 7376

Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

'M288374:160607'

Printed on 21 Jun 2018

© 2018 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)