

## Datasheet: AHP1706

<b>Description:</b>	RABBIT ANTI HUMAN CD279
<b>Specificity:</b>	CD279
<b>Other names:</b>	PD-1
<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
Immunohistology - Paraffin (1)	▪			5.0ug/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.**

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	Reacts with: Mouse, Rat <b>N.B.</b> Antibody reactivity and working conditions may vary between species.
<b>Product Form</b>	Purified IgG - liquid
<b>Antiserum Preparation</b>	Antisera to Human CD279 were raised by repeated immunisation of rabbits with highly purified antigen. Purified IgG 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 peptide corresponding to a 16 amino acid sequence from near the centre of Human CD279.

**External Database  
Links**

**UniProt:**

[Q15116](#)   [Related reagents](#)

**Entrez Gene:**

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

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**Synonyms**      PD1

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**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 may be targeted therapeutically in the treatment of HIV infection to reduce T-cell exhaustion ([Freeman \*et al.\* 2006](#)).

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**Histology Positive  
Control Tissue**      Human brain tissue

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**Western Blotting**      AHP1706 detects a band of approximately 45kDa in THP-1 cell lysate

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**Further Reading**

1. 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.](#)
2. 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 \(8\): 1181-8.](#)
3. 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.](#)

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**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.

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**Shelf Life**      18 months from date of despatch.

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

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**Regulatory**      For research purposes only

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## 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** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto: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](mailto: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](mailto:antibody_sales_de@bio-rad.com)

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