

Datasheet: MCA4624GA

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|----------------------|------------------------|
| Description: | MOUSE ANTI HUMAN CD279 |
| Specificity: | CD279 |
| Other names: | PD-1 |
| Format: | Purified |
| Product Type: | Monoclonal Antibody |
| Clone: | 4F12 |
| Isotype: | IgG2b |
| 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 | | | ▪ | |
| Immunohistology - Paraffin | | | ▪ | |
| ELISA | ▪ | | | |
| Immunoprecipitation | | | ▪ | |
| Western Blotting | ▪ | | | 1/500 - 1/1000 |

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.

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|---------------------------------|--|
| Target Species | Human |
| Product Form | Purified IgG - liquid |
| Preparation | Purified IgG prepared by affinity chromatography on Protein G from ascites |
| Buffer Solution | Phosphate buffered saline |
| Preservative Stabilisers | 0.02% Sodium Azide (NaN ₃) 10% Glycerol |
| Approx. Protein | IgG concentration 1.0 mg/ml |

Concentrations

Immunogen Recombinant human CD279 (amino acids 21-167) purified from *Escherichia coli*.

External Database Links

UniProt:

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

Entrez Gene:

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

Synonyms PD1

RRID AB_1510076

Fusion Partners Spleen cells from immunised Balb/c mice were fused with cells of the mouse FO myeloma cell line.

Specificity **Mouse anti Human CD279, clone 4F12** recognizes human CD279, otherwise known as PD-1/PDCD1, a type I transmembrane glycoprotein and member of the Ig superfamily, which acts as a co-stimulatory molecule and negative regulator of T-cell activation ([Patsoukis et al. 2012](#)).

CD279 is an immunoinhibitory receptor which interacts with its ligands CD274 (PD-L1) and CD273 (PD-L2) to inhibit the activation and proliferation of T and B cells. CD279 is associated with regulating peripheral tolerance of T cells and preventing autoimmunity and autoimmune diseases, including type I diabetes and rheumatoid arthritis ([Okazaki et al. 2005](#)).

Western Blotting MCA4624GA detects a band of approximately 32-36 kDa in 293T and U937 cell lysates.

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10049 available at: <https://www.bio-rad-antibodies.com/SDS/MCA4624GA> 10049

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL \(MCA691\)](#)

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|----------------------------------|---|------------------|---|---------------|---|
| 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 |
|----------------------------------|---|------------------|---|---------------|---|

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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