

Datasheet: MCA4636GA

Description:	HAMSTER ANTI MOUSE CD152
Specificity:	CD152
Other names:	CTLA-4
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	1B8
Isotype:	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	■			1/10 - 1/100
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA	■			
Immunoprecipitation	■			
Western Blotting	■			
Immunofluorescence	■			

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	Mouse
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Extracellular portion of mouse CD152 fused to a mouse IgG2a.

**External Database
Links**

UniProt:

[P09793](#)

[Related reagents](#)

Entrez Gene:

[12477](#)

Ctla4

[Related reagents](#)

Synonyms

Cd152

Fusion Partners

Lymph cells from immunised Armenian hamsters were fused with cells of the murine SP2/0 myeloma cell line.

Specificity

Hamster anti Mouse CD152 antibody, clone 1B8 recognizes mouse CD152, commonly known as CTLA-4 (cytotoxic T-lymphocyte protein 4), a structural homolog for CD28. CD152 binds the same ligands as CD28, namely CD80 (B7.1) and CD86 (B7.2), but with much higher affinity. However, while binding of CD28 enhances T cell function, binding of CD152 inhibits it. CD152 is not detected on naïve T-cells and is induced upon T-cell activation.

In mice, lack of CD152 leads to massive lymphoproliferative disorder leading to tissue destruction and autoimmunity, suggesting a critical role for CD152 in limiting T-cell responses. CD152 has been shown to reduce IL-2 production after ligation and can inhibit T-cell expansion. This regulatory role and the high binding affinity of CD152 make it a potential therapy for autoimmune diseases such as rheumatoid arthritis.

Hamster anti Mouse CD152 antibody, clone 1B8 may be used to enhance proliferation and pro-inflammatory cytokines of lymph node cells. It may also be used to enhance tumour immunity.

Flow Cytometry

Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.

References

1. Walunas, T. L. *et al.* (1994) CTLA-4 can function as a negative regulator of T cell activation. [Immunity 1: 405-413.](#)
2. Verhagen, J. *et al.* (2013) CTLA-4 controls the thymic development of both conventional and regulatory T cells through modulation of the TCR repertoire. [Proc Natl Acad Sci U S A. 110: E221-30.](#)

Further Reading

1. Karandikar, N.J. *et al.* (1996) CTLA-4: a negative regulator of autoimmune disease. [J Exp Med. 184 \(2\): 783-8.](#)

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

Goat Anti Hamster IgG (STAR104...) [DyLight®549](#), [DyLight®649](#), [DyLight®800](#),
[FITC](#)

Goat Anti Hamster IgG (STAR79...) [Biotin](#), [FITC](#), [HRP](#)

Recommended Negative Controls

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL \(MCA2356\)](#)

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