

## Datasheet: MCA4636EL

<b>Description:</b>	HAMSTER ANTI MOUSE CD152:Low Endotoxin
<b>Specificity:</b>	CD152
<b>Other names:</b>	CTLA-4
<b>Format:</b>	Low Endotoxin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	1B8
<b>Isotype:</b>	IgG
<b>Quantity:</b>	0.5 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
Flow Cytometry	■			1/10 - 1/100
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA	■			
Immunoprecipitation	■			
Western Blotting	■			
Immunofluorescence	■			
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.

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	None present
<b>Carrier Free</b>	Yes
<b>Endotoxin Level</b>	<0.01EU/ug
<b>Approx. Protein</b>	IgG concentration 1.0mg/ml

## Concentrations

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<b>Immunogen</b>	Extracellular portion of mouse CD152 fused to a mouse IgG2a.
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## 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  $1 \times 10^6$  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 -20°C only.

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 #10162 available at:  
10162: <https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf>

## 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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