

# Datasheet: MCA2755

**BATCH NUMBER 170118**

<b>Description:</b>	MOUSE ANTI HUMAN CD154 (SOLUBLE)
<b>Specificity:</b>	CD154 (SOLUBLE)
<b>Other names:</b>	CD40 LIGAND, TRAP
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	1H4
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.2 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			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting	▪			
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>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )

## Stabilisers

### Approx. Protein Concentrations

IgG concentration 1.0mg/ml

### Immunogen

Recombinant human soluble CD154 conjugated to BSA.

### External Database Links

#### UniProt:

[P29965](#)

[Related reagents](#)

#### Entrez Gene:

[959](#)

CD40LG

[Related reagents](#)

### Synonyms

CD40L, TNFSF5, TRAP

### RRID

AB\_1055608

### Fusion Partners

Spleen cells from immunised Balb/c mice were fused with cells of the myeloma Sp2/0 cell line.

### Specificity

**Mouse anti Human CD154 (Soluble) antibody, clone 1H4** recognizes the soluble form of CD154, otherwise known as CD40 Ligand/TRAP, a ~32 kDa glycoprotein and member of the TNF family, which is specifically expressed on activated, but not resting, CD4+ T cells, dendritic cells (DCs), B cells and macrophages.

CD154 binds CD40, and acts as a key co-stimulatory molecule through the activation of antigen-presenting cells, and as a regulator of the generation and functional properties of Th1 helper cells. CD154 exists in both a membrane-bound and soluble form, the latter of which is generated through proteolytic processing by a matrix metalloproteinase (MMP), in activated cells.

The binding of CD154 with its receptor CD40 is vital for many biological processes, including Ig class switching, germinal centre formation and the survival of CD40+ B cells, B cell proliferation in the absence of co-stimulus, the production of IgE in the presence of interleukin-4 (IL-4), and also in the production of pro-inflammatory cytokines, MMPs, prostaglandins and adhesion molecule upregulation, in non-immune cells.

Mouse anti Human CD154 (Soluble) antibody, clone 1H4 recognizes the soluble form of the protein.

### References

1. Pietravalle, F. *et al.* (1996) Human native soluble CD40L is a biologically active trimer, processed inside microsomes. [J Biol Chem. 271 \(11\): 5965-7.](#)

### 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.

<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2755">https://www.bio-rad-antibodies.com/SDS/MCA2755</a> 10040
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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