

## Datasheet: AHP2183B

<b>Description:</b>	RABBIT ANTI HUMAN CD54:Biotin
<b>Specificity:</b>	CD54
<b>Other names:</b>	ICAM-1
<b>Format:</b>	Biotin
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	50 µg

## 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	▪			0.25 - 1.0ug/ml
Immunoprecipitation			▪	
Western Blotting	▪			0.1 - 0.2ug/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.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG conjugated to Biotin - lyophilised
<b>Reconstitution</b>	Reconstitute with 0.5ml sterile PBS containing 0.1% bovine serum albumin Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution. For long term storage the addition of 0.09% sodium azide is recommended.
<b>Antiserum Preparation</b>	Antiserum to human CD54 was raised by repeated immunisation of rabbits with highly purified antigen. Purified IgG was prepared by affinity chromatography.
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	None present
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1mg/ml after reconstitution

Immunogen [Recombinant human CD54](#).

**External Database Links**

**UniProt:**

[P05362](#) [Related reagents](#)

**Entrez Gene:**

[3383](#) ICAM1 [Related reagents](#)

**Specificity**

**Rabbit anti Human CD54 antibody** recognizes human CD54, otherwise known as Intercellular adhesion molecule 1 or ICAM-1. CD54 is a 532 amino acid single pass type I membrane glycoprotein containing five [Ig-like C2-type domains](#). CD54 is widely expressed and acts as a ligand for the leukocyte integrin LFA-1 (CD11a/CD18) and Mac-1 integrins, it is the major receptor for human rhinovirus([Staunton et al. 1989](#)).

CD54 is highly expressed on activated endothelial cells ([Favoloro 1993](#)) and plays a role in transendothelial cell migration to sites of acute inflammation, functioning primarily as an adhesion molecule between endothelial cells and leucocytes, following injury or stress ([Manes and Pober 2011](#)). Levels of soluble CD54 in serum ([Matalliotakis et al. 2001](#)) or urine ([Kim et al. 2006](#)), can be potentially used as an indication of infection, inflammation and certain tumour, and as a target for immunosuppression in transplantation.

**ELISA**

This biotinylated human CD54 antibody may be used in a direct ELISA or as the detection reagent in a sandwich ELISA with our [purified human CD54 antibody](#) (AHP2183) as the capture reagent and [recombinant human CD54](#) (PHP250) as the standard.

**References**

1. Nadlonek, N.A. *et al.* (2012) Radiation induces osteogenesis in human aortic valve interstitial cells. [J Thorac Cardiovasc Surg. 144 \(6\): 1466-70.](#)
2. Watson, R.L. *et al.* (2015) Endothelial CD99 signals through soluble adenylyl cyclase and PKA to regulate leukocyte transendothelial migration. [J Exp Med. 212 \(7\): 1021-41.](#)

**Storage**

Prior to reconstitution store at +4°C.  
After reconstitution store at -20°C.  
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**

12 months from date of reconstitution

**Health And Safety Information**

Material Safety Datasheet documentation #10294 available at:  
10294: <https://www.bio-rad-antibodies.com/uploads/MSDS/10294.pdf>

**Regulatory**

For research purposes only

**North & South America** Tel: +1 800 265 7376

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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