Datasheet: HCA151F

BATCH NUMBER 169113

Description:	HUMAN ANTI BOVINE CD282:FITC
Specificity:	CD282
Other names:	TLR2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	AbD12542
Isotype:	HuCAL Fab bivalent
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			▪	
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.

Target Species

Bovine

Species Cross Reactivity

Reacts with: Sheep

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

A bivalent human recombinant Fab (lambda light chain) selected from the HuCAL phage display library, expressed in *E.coli*. This Fab fragment is dimerized via a helix-turn-helix

motif. The antibody is tagged with a myc-tag (EQKLISEEDL) and a his-tag (HHHHHH) at the C-terminus of the antibody heavy chain. This antibody is conjugated to fluorescein isothiocyanate (FITC) - liquid.

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

Metal chelate affinity chromatography

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% sodium azide (NaN_3)
1% bovine serum albumin

Approx. Protein Concentrations

Ig concentration 0.1 mg/ml

Immunogen

Fc-fusion protein containing the sequence 21-588 from bovine TLR2

External Database Links

UniProt:
Q95LA9 Related reagents

Entrez Gene:
281534 TLR2 Related reagents

RRID

AB_10846933

Specificity

Human anti Bovine CD282 antibody, clone AbD12542 recognizes bovine TLR2, otherwise known as CD282. TLR2 is a single-pass type 1 membrane protein belong to the Toll-like receptor (TLR) family and is expressed primarily by peripheral blood monocytes.

TLRs are expressed on the cell surface and the endocytic compartment and recognize pathogen-associated molecular patterns (PAMPs) that are expressed on infectious agents. They also initiate cell signaling to induce production of cytokines necessary for the innate immunity and subsequent adaptive immunity.

TLR2 is reported to respond to a diverse range of bacterial cell wall components, mediating the innate immune response in co-operation with Ly96 and TLR1.

Flow Cytometry

Use 10µl of the suggested working dilution to label $1x10^6$ cells in 100µl

References

1. Kwong, L.S. *et al.* (2011) Characterisation of antibodies to bovine Toll-like receptor (TLR)-2 and cross-reactivity with ovine TLR2. Vet Immunol Immunopathol. 139: 313-8.
2. Garza-Cuartero, L. *et al.* (2016) *Fasciola hepatica* infection reduces Mycobacterium bovis burden and mycobacterial uptake and suppresses the pro-inflammatory response. Parasite Immunol. 38 (7): 387-402.
3. Conejeros, I. *et al.* (2015) Effect of the synthetic Toll-like receptor ligands LPS, Pam3CSK4, HKLM and FSL-1 in the function of bovine polymorphonuclear neutrophils.

Dev Comp Immunol. 52 (2): 215-25.
4. Korbonits, L. *et al.* (2022) *Mycobacterium avium* subsp. *paratuberculosis* Infected Cows Reveal Divergent Immune Response in Bovine Peripheral Blood Derived Lymphocyte Proteome. Metabolites. 12 (10): 924.

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
Acknowledgements	This product and/or its use is covered by claims of U.S. patents, and/or pending U.S. and non-U.S. patent applications owned by or under license to Bio-Rad Laboratories, Inc. See bio-rad.com/en-us/trademarks for details. His-tag is a registered trademark of EMD Biosciences.
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/HCA151F 10041
Licensed Use	For *in vitro.* research purposes only, unless otherwise specified in writing by Bio-Rad
Regulatory	For research purposes only
Technical Advice	Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the HuCAL Antibodies Technical Manual.

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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