# Datasheet: HCA151F

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| **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.

**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 | Emission Max (nm) | Excitation Max (nm) |
|---|---|---|
| FITC | 525 | 490 |

**Preparation**

metal chelate affinity chromatography

**Buffer Solution**

Phosphate buffered saline

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| **Preservative Stabilisers** | 0.09% Sodium Azide ($NaN_3$)<br>1% Bovine Serum Albumin |
| **Approx. Protein Concentrations** | Total protein concentration 0.1mg/ml |
| **Immunogen** | Fc-fusion protein containing the sequence 21-588 from bovine TLR2. |
| **External Database Links** | **UniProt:**<br>Q95LA9 Related reagents<br><br>**Entrez Gene:**<br>281534 TLR2 Related reagents |
| **Specificity** | **Human anti Bovine CD282 antibody, clone 12542** 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.<br><br>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 signalling to induce production of cytokines necessary for the innate immunity and subsequent adaptive immunity.<br><br>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 10ul of the suggested working dilution to label $1x10^6$ cells in 100ul. |
| **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.<br>2. Garza-Cuartero Laura *et al.* (2016) *Fasciola hepatica* Infection Reduces *Mycobacterium bovis* burden and Mycobacterial Uptake and Suppresses the Pro-inflammatory Response Parasite Immunology. Apr 25 [Epub ahead of print]<br>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. |
| **Storage** | Store at +4°C or at -20°C if preferred.<br>Storage in frost-free freezers is not recommended.<br>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 despatch. |
| **Acknowledgements** | Sold under license of U.S. Patents 6753136, 7785859 and 8273688 and corresponding patents.<br>This antibody was developed by Bio-Rad, Zeppelinstr. 4, 82178 Puchheim, Germany. |
| **Health And Safety Information** | Material Safety Datasheet documentation available at:<br>Material Safety Datasheet Documentation #10041 available at: |
| **Licensed Use** | For in vitro research purposes only, unless otherwise specified in writing by Bio-Rad. |

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| **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 |

## Related Products

### Recommended Negative Controls

HuCAL Fab-dHLX-MH NEGATIVE CONTROL:FITC (HCA052F)


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