

# Datasheet: MCA1782EL

| Description:  | MOUSE ANTI BOVINE INTERLEUKIN-12/23:Low Endotoxin |
|---------------|---|
| Specificity:  | IL-12 / IL-23                                     |
| Format:       | Low Endotoxin                                     |
| Product Type: | Monoclonal Antibody                               |
| Clone:        | CC301   |
| lsotype:      | lgG2a   |
| Quantity:     | 0.5 mg  |

## **Product Details**

| Applications | This product has been re   | This product has been reported to work in the following applications. This information is |            |                         |                    |  |   |        |  |  |  |  |
|--------------|--|---|------------|-------------------------|--------------------|--|---|--------|--|--|--|--|
|              | derived from testing withi   | n our labo  | oratories, | peer-reviewed publica   | tions or personal  |  |   |        |  |  |  |  |
|              | communications from the  | communications from the originators. Please refer to references indicated for further     |            |                         |                    |  |   |        |  |  |  |  |
|              | information For general r  | protocol r  | ecommer    | idations please visit w | ww.bio-            |  |   |        |  |  |  |  |
|              |  |   |            |                         |                    |  |   |        |  |  |  |  |
|              |  | Yes   | No         | Not Determined          | Suggested Dilution |  |   |        |  |  |  |  |
|              | Flow Cytometry (1)   | •   | 110        |                         | 1/10               |  |   |        |  |  |  |  |
|              | Immunohistology - Frozen   |   |            | •                       | 1,10               |  |   |        |  |  |  |  |
|              | Immunohistology - Paraffin   |   |            | •                       |                    |  |   |        |  |  |  |  |
|              | ELISA  |   |            |                         | 8ua/ml             |  |   |        |  |  |  |  |
|              |  |   |            | •                       |                    |  |   |        |  |  |  |  |
|              | Western Blotting   |   |            |                         | 1/50 - 1/100       |  |   |        |  |  |  |  |
|              | Functional Assavs  | •   |            |                         | 1/100              |  |   |        |  |  |  |  |
|              | ELISpot  | -   |            |                         |                    |  |   |        |  |  |  |  |
|              | Where this product has not been tested for use in a particular technique this does not   |   |            |                         |                    |  |   |        |  |  |  |  |
|              | necessarily exclude its us   | necessarily exclude its use in such procedures. Suggested working dilutions are given as  |            |                         |                    |  |   |        |  |  |  |  |
|              | a quide only. It is recomm   | a guide only. It is recommended that the user titrates the product for use in their own   |            |                         |                    |  |   |        |  |  |  |  |
|              | system using appropriate negative/positive controls.<br>(1) Membrane permeabilization is required for this application. The use of |   |            |                         |                    |  |   |        |  |  |  |  |
|              |  |   |            |                         |                    |  | Leucoperm (Product Code <u>BUF09</u> ) is recommended for this purpose. |        |  |  |  |  |
|              |  |   |            |                         |                    |  | Target Species  | Bovine |  |  |  |  |
|              | Species Cross  | Reacts with: Human, Sheep, African Buffalo  |            |                         |                    |  |   |        |  |  |  |  |
| Reactivity   | Does not react with:Mous   | se  |            |                         |                    |  |   |        |  |  |  |  |
|              | <b>N.B.</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 | Purified IgG - liquid  |   |            |                         |                    |  |   |        |  |  |  |  |

| Preparation                       | Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant   |  |  |  |  |
|-----------------------------------|---|--|--|--|--|
| Buffer Solution                   | Phosphate buffered saline   |  |  |  |  |
| Preservative<br>Stabilisers       | None present  |  |  |  |  |
| Carrier Free                      | Yes   |  |  |  |  |
| Endotoxin Level                   | <0.01 EU/µg   |  |  |  |  |
| Approx. Protein<br>Concentrations | IgG concentration 1.0 mg/ml   |  |  |  |  |
| Immunogen                         | Recombinant bovine IL-12.   |  |  |  |  |
| External Database<br>Links        | UniProt:  |  |  |  |  |
|                                   | P54349 Related reagents P46282 Related reagents   |  |  |  |  |
|                                   |   |  |  |  |  |
|                                   | Entrez Gene:  |  |  |  |  |
|                                   | 281856 IL12A Related reagents   |  |  |  |  |
|                                   | Z81837 IL12B Related reagents   |  |  |  |  |
| RRID                              | AB_616909   |  |  |  |  |
| Fusion Partners                   | Spleen cells from immunized BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.   |  |  |  |  |
| Specificity                       | <b>Mouse anti Bovine Interleukin-12/23 antibody, clone CC301</b> recognizes the p40 subunit of bovine interleukin-12, and binds to both the free subunit and the intact heterodimer. The p40 subunit is also known as IL-12B and can form a heterodimer with either IL-12A or IL-23A.   |  |  |  |  |
|                                   | Mouse anti Bovine Interleukin-12/23 antibody, clone CC301 may be used as a capture antibody in an ELISA in combination with biotinylated Mouse anti Bovine Interleukin-12/23 antibody, clone CC326 (MCA2173B) as a detection reagent.   |  |  |  |  |
| Flow Cytometry                    | Use $10\mu$ I of the suggested working dilution to label $10^6$ cells in $100\mu$ I   |  |  |  |  |
| ELISA                             | This antibody may be used as a capture antibody in a sandwich ELISA in combination with biotinylated clone CC326 (MCA2173B) as detection reagent (Bannerman <i>et al.</i> 2004).  |  |  |  |  |
| References                        | <ol> <li>Hope, J.C. <i>et al.</i> (2002) Development of detection methods for ruminant interleukin<br/>(IL)-12. <u>J Immunol Methods. 266 (1-2): 117-26.</u></li> <li>Wenz, J.R. <i>et al.</i> (2010) Factors associated with concentrations of select cytokine and<br/>acute phase proteins in dairy cows with naturally occurring clinical mastitis. <u>J Dairy Sci.</u></li> </ol> |  |  |  |  |

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13. Pomeroy B *et al.* (2015) Monocyte-derived dendritic cells from late gestation cows have an impaired ability to mature in response to *E. coli* stimulation in a receptor and cytokine-mediated fashion. <u>Vet Immunol Immunopathol. 167 (1-2): 22-9.</u>

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 Stabel, J.R. *et al.* (2020) Comparison of Sheep, Goats, and Calves as Infection

|                   | <ul> <li>Models for <i>Mycobacterium avium</i> subsp. <i>paratuberculosis</i>. <u>Vet Immunol Immunopathol</u>.</li> <li><u>225: 110060</u>.</li> <li>20. Ihedioha, O. <i>et al.</i> (2020) Poor stimulation of bovine dendritic cells by Mycobacterium</li> </ul> |
|-------------------|--|
|                   | bovis culture supernatant and surface extract is associated with decreased activation of ERK and NE-KB and higher expression of SOCS1 and 3. Innate Immun. 26 (6): 537-546   |
|                   |  |
| Storage           | Store at -20°C only.   |
|                   | This product should be stored undiluted.   |
|                   | Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing   |
|                   | as this may denature the antibody. Should this product contain a precipitate we  |
|                   | recommend microcentrifugation before use.  |
| Guarantee         | 12 months from date of despatch  |
| Health And Safety | Material Safety Datasheet documentation #10162 available at:   |
| Information       | https://www.bio-rad-antibodies.com/SDS/MCA1782EL   |
|                   | 10162  |
| Regulatory        | For research purposes only   |

## Related Products

### **Recommended Secondary Antibodies**

| Rabbit Ar   | nti Mouse IgG (STAR12)      | RP            | RPE  |               |                                      |  |  |
|---|-----------------------------|---------------|--|---------------|--------------------------------------|--|--|
| Goat Anti Mouse IgG IgA IgM (STAR87) <u>HRP</u>       |                             |               |  |               |                                      |  |  |
| Goat Ant  | i Mouse IgG (STAR76)        | <u>RPE</u>    |  |               |                                      |  |  |
| Goat Ant  | i Mouse IgG (STAR70)        | FIT           | <u>FITC</u>  |               |                                      |  |  |
| Goat Ant  | i Mouse IgG (H/L) (STAR117. | .) <u>Alk</u> | .) <u>Alk. Phos.</u> , <u>DyLight®488</u> , <u>DyLight®550</u> , |               |                                      |  |  |
|   |                             | Dyl           | <u>ight®650, DyLight®68</u>                                      | 0, DyLight®80 | <u>0,</u>                            |  |  |
|   |                             | FIT           | <u>C, HRP</u>  |               |                                      |  |  |
| Rabbit Ar   | nti Mouse IgG (STAR9)       | FIT           | <u>C</u>   |               |                                      |  |  |
| Goat Anti Mouse IgG (STAR77) <u>HRP</u>               |                             |               |  |               |                                      |  |  |
| Goat Anti Mouse IgG (Fc) (STAR120) 🛛 🗗                |                             |               | FITC, HRP  |               |                                      |  |  |
| Rabbit Anti Mouse IgG (STAR13) <u>HRP</u>             |                             |               |  |               |                                      |  |  |
| Recomn  | nended Negative Controls    | 5             |  |               |                                      |  |  |
| MOUSE IgG2a NEGATIVE CONTROL:Low Endotoxin (MCA929EL) |                             |               |  |               |                                      |  |  |
| North & South   | Tel: +1 800 265 7376 Worl   | lwide         | Tel: +44 (0)1865 852 700   | Europe        | Tel: +49 (0) 89 8090 95 21           |  |  |
| America   | Fax: +1 919 878 3751        |               | Fax: +44 (0)1865 852 739   |               | Fax: +49 (0) 89 8090 95 50           |  |  |
| Email: antibody_sales_us@bio-rad.com                  |                             |               | Email: antibody_sales_uk@bio-rad.com E                           |               | Email: antibody_sales_de@bio-rad.com |  |  |

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#### Printed on 26 Feb 2024

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