

Datasheet: MCA2061F

| Description:         | MOUSE ANTI HUMAN CD284:FITC |
|----------------------|-----------------------------|
| Specificity:         | CD284                       |
| Other names:         | TLR4                        |
| Format:              | FITC                        |
| <b>Product Type:</b> | Monoclonal Antibody         |
| Clone:               | HTA125                      |
| Isotype:             | lgG2a                       |
| 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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

|                | Yes | No | Not Determined | Suggested Dilution |
|----------------|-----|----|----------------|--------------------|
| Flow Cytometry | •   |    |                | Neat               |

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              | Human   |                         |  |  |
|-----------------------------|---|-------------------------|--|--|
| Species Cross<br>Reactivity | <b>N.B.</b> Antibody reactiv reactivity is derived fr | · ·                     | ons may vary betw<br>aboratories, peer-r | veen species. Cross<br>eviewed publications or<br>references indicated for |
| Product Form                | Purified IgG conjugat                                 | ed to Fluorescein Isoth | niocyanate Isomer                        | 1 (FITC) - liquid  |
| Max Ex/Em                   | Fluorophore<br>FITC                                   | Excitation Max (nm)     | Emission Max (nr                         | n)   |
| Preparation                 |   | by affinity chromatog   |  | from tissue culture  |
| Buffer Solution             | Phosphate buffered s                                  | aline                   |  |  |

| Preservative<br>Stabilisers       | 0.09% sodium azide (NaN <sub>3</sub> ) 1% bovine serum albumin  |
|-----------------------------------|---|
| Approx. Protein<br>Concentrations | IgG concentration 0.1 mg/ml   |
| Immunogen                         | Ba/F3 cell line expressing TLR4 (CD284).  |
| External Database<br>Links        | UniProt: O00206 Related reagents  Entrez Gene: 7099 TLR4 Related reagents   |
| RRID                              | AB_323648   |
| Fusion Partners                   | Spleen cells from immunised Balb/c mice were fused with cells of the mouse SP2/0 myeloma cell line.   |
| Specificity                       | Mouse anti Human CD284 antibody, clone HTA125 recognizes the human Toll like receptor 4 (TLR4) cell surface antigen.  |
|                                   | TLR4, also known as CD284, has been demonstrated to act as a receptor for LPS on human monocytes and macrophages. TLR4 signalling of LPS stimulation requires the presence of the MD-2 molecule.  |
|                                   | TLR4 is weakly expressed by resting cells, but is upregulated following stimulation with LPS.   |
|                                   | This antibody has been demonstrated to block activation of monocytes with LPS. The use of a preservative free format of Mouse anti Human CD284 antibody, clone HTA125 (MCA2061EL) is recommended for functional assays.   |
| Flow Cytometry                    | Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells or 100µl whole blood  |
| References                        | <ol> <li>Shimazu, R. et al. (1999) MD-2, a molecule that confers lipopolysaccharide responsiveness on Toll-like receptor 4. J Exp Med. 189 (11): 1777-82.</li> <li>Sugawara, S. et al. (2000) Proteolysis of human monocyte CD14 by cysteine proteinases (gingipains) from Porphyromonas gingivalis leading to lipopolysaccharide hyporesponsiveness. J Immunol. 165: 411-8.</li> <li>Yang, S. et al. (2001) Synergistic effect of muramyldipeptide with lipopolysaccharide or lipoteichoic acid to induce inflammatory cytokines in human monocytic cells in culture. Infect Immun. 69 (4): 2045-53.</li> <li>Kawahara T et al. (2001) Type I Helicobacter pylori lipopolysaccharide stimulates toll-like receptor 4 and activates mitogen oxidase 1 in gastric pit cells. Infect Immun. 69 (7): 4382-9.</li> <li>Baumgarten, G. et al. (2001) In vivo expression of proinflammatory mediators in the</li> </ol> |

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- 31. Reineking, W. *et al.* (2018) Canine primary jejunal and colonic epithelial cells predominantly express TLR5 and TLR9 but do not change TLR expression pattern after stimulation with certain Toll-like receptor ligands. <u>Vet Immunol Immunopathol. 206: 16-24.</u> 32. Awuah, D. *et al.* (2019) The Cross-Talk between miR-511-3p and C-Type Lectin Receptors on Dendritic Cells Affects Dendritic Cell Function. <u>J Immunol. 203 (1): 148-57.</u>

### 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. This product is photosensitive and should be protected from light.

| Guarantee                        | 12 months from date of despatch  |
|----------------------------------|--|
| Health And Safety<br>Information | Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2061F">https://www.bio-rad-antibodies.com/SDS/MCA2061F</a> 10041 |
| Regulatory                       | For research purposes only   |

# Related Products

**Recommended Negative Controls** 

MOUSE IgG2a NEGATIVE CONTROL:FITC (MCA929F)

**Recommended Useful Reagents** 

**HUMAN SEROBLOCK (BUF070A)** 

### **HUMAN SEROBLOCK (BUF070B)**

 North & South
 Tel: +1 800 265 7376
 Worldwide
 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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M437231:250310'

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