# Datasheet: MCA1742F

## BATCH NUMBER 161491

| | |
|---|---|
| **Description:** | MOUSE ANTI HUMAN CD227:FITC |
| **Specificity:** | CD227 |
| **Other names:** | CA 15-3, MUCIN 1 |
| **Format:** | FITC |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | C595 (NCRC48) |
| **Isotype:** | IgG3 |
| **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 | ▪ | | | Neat - 1/10 |
| Immunofluorescence | ▪ | | | |

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**Target Species**

Human

**Product Form**

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

**Max Ex/Em**

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

**Preparation**

Purified IgG prepared by affinity chromatography on Protein A

**Buffer Solution**

Phosphate buffered saline

**Preservative Stabilisers**

0.09% Sodium Azide
1% Bovine Serum Albumin

**Approx. Protein Concentrations**

IgG concentration 0.1 mg/ml

| | |
|---|---|
| **Immunogen** | Urinary MUC-1 mucin. |
| **External Database Links** | **UniProt:**<br>P15941 Related reagents<br><br>**Entrez Gene:**<br>4582 MUC1 Related reagents |
| **Synonyms** | PUM |
| **RRID** | AB_324409 |
| **Fusion Partners** | Spleen cells from immunised Balb/c mice were fused with cells of a mouse myeloma cell line. |
| **Specificity** | **Mouse anti Human CD227 antibody, clone C595 (NCRC48)** recognizes CD227, also known as mucin 1 which is a breast cancer associated mucin encoded by the Muc-1 gene. Mucins are a family of high molecular weight, heavily glycosylated proteins (glycoconjugates) produced by many epithelial tissues in vertebrates. CD227 is expressed on most secretory epithelium, including mammary gland and some hematopoietic cells. This protein is overexpressed abundantly in >90% breast carcinomas and metastases.<br><br>Mouse anti Human CD227 antibody, clone C595 recognizes the peptide epitope ARG-PRO-ALA-PRO within the protein core of the mucin. |
| **Flow Cytometry** | Use 10ul of the suggested working dilution to label $10^6$ cells in 100ul. |
| **References** | 1. Price, M.R. *et al.* (1990) Immunological and structural features of the protein core of human polymorphic epithelial mucin. Mol Immunol. 27 (8): 795-802.<br>2. Price, M.R. *et al.* (1990) C595--a monoclonal antibody against the protein core of human urinary epithelial mucin commonly expressed in breast carcinomas. Br J Cancer. 61 (5): 681-6.<br>3. Price, M.R. *et al.* (1991) Purification of anti-epithelial mucin monoclonal antibodies by epitope affinity chromatography. J Immunol Methods. 139 (1): 83-90.<br>4. Denton, G. *et al.* (1995) Primary sequence determination and molecular modelling of the variable region of an antiMUC1 mucin monoclonal antibody. Eur J Cancer. 31A (2): 214-21.<br>5. Denton, G. *et al.* (1997) Production and characterization of a recombinant anti-MUC1 scFv reactive with human carcinomas. Br J Cancer. 76 (5): 614-21.<br>6. Murray, A. *et al* (2001) Production and characterization of 188Re-C595 antibody for radioimmunotherapy of transitional cell bladder cancer. J Nucl Med. 42: 726-32.<br>7. Hisatsune, A. *et al.* (2011) Anti-MUC1 antibody inhibits EGF receptor signaling in cancer cells. Biochem Biophys Res Commun. 405: 377-81.<br>8. Ragupathi, G. *et al.* (2005) Antibodies against tumor cell glycolipids and proteins, but not mucins, mediate complement-dependent cytotoxicity. J Immunol. 174: 5706-12.<br>9. Huang, D.M. *et al.* (2004) Modulation of anti-adhesion molecule MUC-1 is associated with arctiin-induced growth inhibition in PC-3 cells. Prostate. 2004 May 15;59(3): 260-7. |

| | |
|---|---|
| **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.<br><br>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 Information** | Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1742F<br>10041 |
| **Regulatory** | For research purposes only |

## Related Products

### Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)


| | | | | | |
|---|---|---|---|---|---|
| **North & South America** | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>Email: antibody_sales_us@bio-rad.com | **Worldwide** | Tel: +44 (0)1865 852 700<br>Fax: +44 (0)1865 852 739<br>Email: antibody_sales_uk@bio-rad.com | **Europe** | Tel: +49 (0) 89 8090 95 21<br>Fax: +49 (0) 89 8090 95 50<br>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
'M384848:210513'

**Printed on 29 Aug 2024**