

## Datasheet: MCA1742

**BATCH NUMBER 154454**

<b>Description:</b>	MOUSE ANTI HUMAN CD227
<b>Specificity:</b>	CD227
<b>Other names:</b>	CA 15-3, MUCIN 1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	C595 (NCRC48)
<b>Isotype:</b>	IgG3
<b>Quantity:</b>	0.2 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)	▪			
ELISA	▪			1/100 - 1/1000
Immunoprecipitation			▪	
Western Blotting	▪			
Immunofluorescence	▪			

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.

**(1) This product requires heat mediated antigen retrieval prior to staining of paraffin embedded material. Citrate buffer pH6.0 is recommended for this purpose.**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Urinary MUC-1 mucin.
External Database Links	<p><b>UniProt:</b>  <a href="#">P15941</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">4582</a>    MUC1    <a href="#">Related reagents</a></p>
Synonyms	PUM
RRID	AB_322211
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of a mouse myeloma cell line.
Specificity	<p><b>Mouse anti Human CD227 antibody, clone C595 (NCRC48)</b> 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 &gt;90% breast carcinomas and metastases.</p> <p>Mouse anti Human CD227 antibody, clone C595 recognizes the peptide epitope ARG-PRO-ALA-PRO within the protein core of the mucin.</p>
Histology Positive Control Tissue	Breast carcinoma
References	<ol style="list-style-type: none"> <li>Price, M.R. <i>et al.</i> (1990) Immunological and structural features of the protein core of human polymorphic epithelial mucin. <a href="#">Mol Immunol. 27 (8): 795-802.</a></li> <li>Price, M.R. <i>et al.</i> (1990) C595--a monoclonal antibody against the protein core of human urinary epithelial mucin commonly expressed in breast carcinomas. <a href="#">Br J Cancer. 61 (5): 681-6.</a></li> <li>Price, M.R. <i>et al.</i> (1991) Purification of anti-epithelial mucin monoclonal antibodies by epitope affinity chromatography. <a href="#">J Immunol Methods. 139 (1): 83-90.</a></li> <li>Denton, G. <i>et al.</i> (1995) Primary sequence determination and molecular modelling of the variable region of an antiMUC1 mucin monoclonal antibody. <a href="#">Eur J Cancer. 31A (2): 214-21.</a></li> </ol>

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.](#)
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.](#)
7. Hisatsune, A. *et al.* (2011) Anti-MUC1 antibody inhibits EGF receptor signaling in cancer cells. [Biochem Biophys Res Commun. 405: 377-81.](#)
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.](#)
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

Store at +4°C or at -20°C if preferred.

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 Information

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA174210040>

#### Regulatory

For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>

#### North & South America

Tel: +1 800 265 7376

Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto: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](mailto: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](mailto: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](https://www.bio-rad-antibodies.com/datasheets)

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