

## Datasheet: MCA1451G

<b>Description:</b>	MOUSE ANTI HUMAN AGGRECAN
<b>Specificity:</b>	AGGRECAN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	7E1
<b>Isotype:</b>	IgG1
<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			▪	
ELISA	▪			
Immunoprecipitation	▪			
Western Blotting	▪			
Immunocytochemistry	▪			

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 Reactivity

Reacts with: Bovine

Does not react with: Chicken, Fish, Rat

**N.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

<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Purified human articular cartilage aggrecan.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P16112</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">176</a>    ACAN    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	AGC1, CSPG1, MSK16
<b>Fusion Partners</b>	Spleen cells from immunised Balb/c mice were fused with cells of the mouse NS1 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human aggrecan antibody, clone 7E1</b> recognizes human aggrecan, a proteoglycan and member of the aggrecan/versican proteoglycan family, which forms a major component of the extracellular matrix (ECM) of both cartilage and the central nervous system (CNS).</p> <p>A panel of core protein-directed antibodies against human aggrecan, revealed the distribution of different aggrecan isoforms within the CNS, and sub-divided the isoforms into clusters 1-5 accordingly. There is a difference in the relative abundance of these isoforms when comparing brain and cartilage tissues (<a href="#">Virgintino et al. 2009</a>).</p> <p>Mouse anti Human aggrecan antibody, clone 7E1 recognizes a ~205 kDa trypsin derived fragment of aggrecan.</p> <p><b>Note:</b> Originally described as being of the isotype IgM, clone 7E1 was found to be unstable and was re-cloned by the originator and the new stable sub-clone was confirmed as being an IgG1.</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Virgintino, D. <i>et al.</i> (2009) Differential distribution of aggrecan isoforms in perineuronal nets of the human cerebral cortex. <a href="#">J Cell Mol Med. 13 (9B): 3151-73.</a></li> <li>2. Aigner, T. <i>et al.</i> (2002) Prognostic relevance of cell biologic and biochemical features in conventional chondrosarcomas. <a href="#">Cancer. 94: 2273-81.</a></li> <li>3. Hashemi Beni, B. <i>et al.</i> (2008) Induction of Chondrogenic Differentiation of Human Adipose-Derived Stem Cells with TGF-β3 in Pellet Culture System <a href="#">Iranian J basic Med Res. 11: 10-17</a></li> </ol>

4. Garciadiego-Cázares, D. *et al.* (2015) Regulation of  $\alpha 5$  and  $\alpha V$  Integrin Expression by GDF-5 and BMP-7 in Chondrocyte Differentiation and Osteoarthritis. [PLoS One. 10 \(5\): e0127166.](#)
5. Mukherjee, D.P. *et al.* (2009) Effect of 3D-microstructure of bioabsorbable PGA:TMC scaffolds on the growth of chondrogenic cells. [J Biomed Mater Res B Appl Biomater. 88 \(1\): 92-102.](#)
6. Wei, A. *et al.* (2016) Expression of growth differentiation factor 6 in the human developing fetal spine retreats from vertebral ossifying regions and is restricted to cartilaginous tissues. [J Orthop Res. 34 \(2\): 279-89.](#)

**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.

**Guarantee** 12 months from date of despatch

**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

- Goat Anti Mouse IgG (STAR77...) [HRP](#)
- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Goat Anti Mouse IgG (STAR70...) [FITC](#)
- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@550](#), [DyLight@650](#), [DyLight@680](#), [DyLight@800](#), [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)

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