

## Datasheet: MCA1451G

**BATCH NUMBER 151699**

<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.

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	<p>Reacts with: Bovine</p> <p>Does not react with: Chicken, Fish, Rat</p> <p><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.</p>
<b>Product Form</b>	Purified IgG - liquid

<b>Preparation</b>	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
<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>Studies using 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. These studies also showed 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>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>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> </ol>

3. Hashemi Beni, B. *et al.* (2008) Induction of Chondrogenic Differentiation of Human Adipose-Derived Stem Cells with TGF- $\beta$ 3 in Pellet Culture System [Iranian J basic Med Res. 11: 10-17](#)
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

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/MCA1451G10040>

#### 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>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<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 (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>

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