

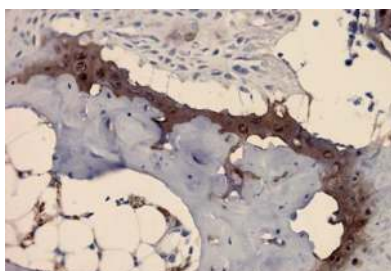
## CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

<b>Product name</b>	Collagen II, Mouse, clone M2139		
<b>Catalog number</b>	HM1063-5MG		
<b>Lot number</b>	-	<b>Expiry date</b>	-
<b>Volume</b>	-	<b>Amount</b>	5 mg
<b>Formulation</b>	0.2 µm filtered in PBS	<b>Concentration</b>	>0.5 mg/ml
<b>Host Species</b>	Mouse IgG2b	<b>Conjugate</b>	None
<b>Endotoxin</b>	<24 EU/mg	<b>Purification</b>	Protein G
<b>Storage</b>	4°C		

### Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #					1,2,3			
Yes		•			•	•		
No								
N.D.	•		•	•			•	•

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



IHC-P: Immunohistochemical analysis of collagen II in paraffin-embedded mouse cartilage from paw.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:25.

- FS: M2139 suppresses the self-assembly of CII into fibrils (Ref. 2)
- Positive control: Mouse cartilage from paw; Negative control: Liver, spleen, kidney

### General Information

**Description** The monoclonal antibody M2139 reacts with the J1 epitope (triple helical position 551-564) of collagen type II. Collagen is a structural protein in bone, cartilage and connective tissue. Collagen type II (CII) is the major collagen of the nucleus pulposus (a component of spine), cartilage and vitreous (a component of the eye). The most commonly used animal model for rheumatoid arthritis (RA) is the collagen-induced arthritis (CIA). Transfer of collagen type II specific monoclonal antibodies induces an acute form of arthritis (collagen type II antibody induced arthritis, CAIA). The monoclonal antibody M2139 has been shown to induce CAIA in naïve mice after injection of lipopolysaccharide (LPS). However, in combination with the monoclonal antibody CIIc1, binding to the C1 epitope of CII, the pair of monoclonal antibodies induce arthritis in different strains of mice without any other stimulants. The presence of secondary stimulus, LPS, increases the disease incidence and severity.

**Aliases** CII

**Cross reactivity** Bovine: Yes; Chicken: Yes; Human: Yes; Rat: Yes.

- References**
1. Nandakumar, K et al; Collagen Type II-specific monoclonal antibody-induced arthritis in mice. Description of the disease and the influence of age, sex and genes. *Am J Pathol* 2003, 163: 1827
  2. Nandakumar, K et al; Collagen type II (CII)-specific antibodies induce arthritis in the absence of T or B cells but the arthritis progression is enhanced by CII-reactive T cells. *Arthritis Res Ther* 2004, 6: R544

- Cook, A et al; Urokinase-type plasminogen activator and arthritis progression: role in systemic disease with immune complex involvement. *Arthritis Research & Therapy* 2010, 12:R37

**Storage&stability** Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

**Precautions** For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC  
Brenda Teunissen

Date  
07/10/2019

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).