



# Mouse Arthritis Reagents

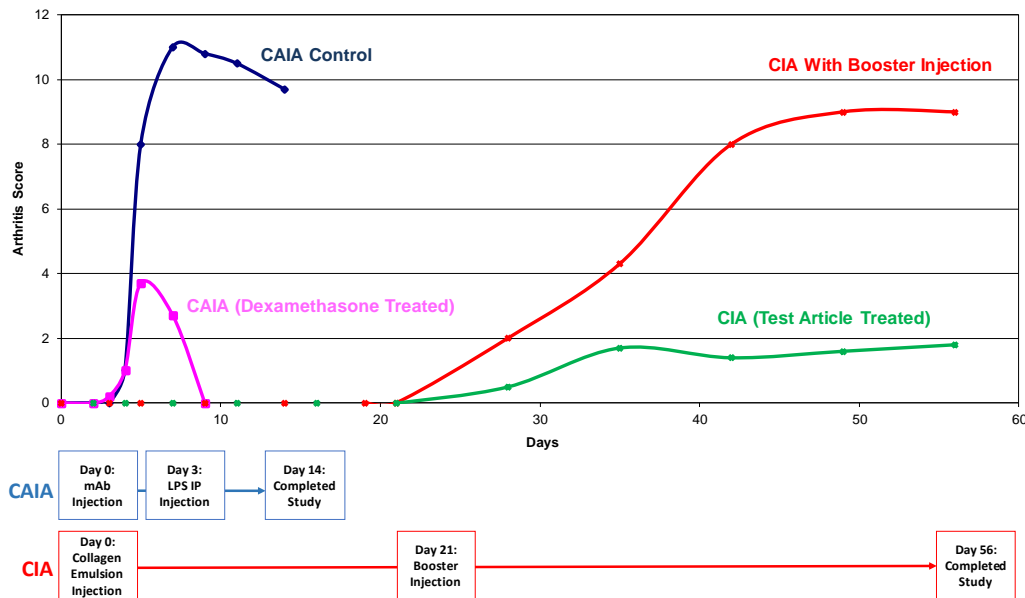


**Collagen-antibody induced arthritis (CAIA)** is a rapid model of arthritis using monoclonal antibodies (mAbs) against type II collagen. A single injection induces arthritis in mice within days as compared to weeks with the collagen induced arthritis (CIA) model.

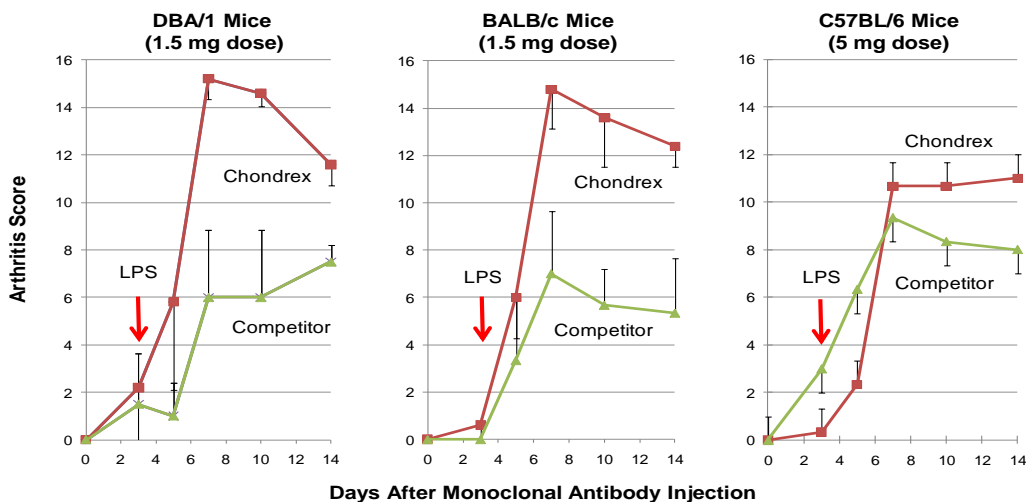
**Collagen-induced arthritis (CIA)** shares both immunological and pathological features with human rheumatoid arthritis (RA), therefore it is used extensively as a model to study the pathogenesis of RA and for testing therapeutics.

## General Comparison

	CAIA	CIA
Experimental Time	7 - 14 days	6 - 8 weeks
Mouse Strains	C57BL/6, DBA/1, BALB/c, Transgenic, more	DBA/1, C57BL/6
Incidence	100 %	60 - 90 %
Arthritis Score	10 - 16	6 - 12



## Chondrex, Inc.'s CAIA Cocktail Induces Severe Arthritis in Different Mouse Strains





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## Materials Required for CAIA Experiment

Chondrex, Inc.'s anti-type II collagen 5-clone monoclonal antibody cocktail induces arthritis in mice. Two of the five clones recognize individual epitopes clustered within the 83 amino acid peptide fragment called LyC-2 (291-374) and the other three clones recognize the 167 amino acid peptide fragment called LyC-1 (124-290) of the CB11 fragment (124-402) of type II collagen. These epitopes share common amino acid sequences with many different species of type II collagen including chick, mouse, rat, bovine, porcine, monkey, and human. For more information, please contact Chondrex, Inc. at [support@chondrex.com](mailto:support@chondrex.com).

Description	Quantity*	Catalog #
Arthrogen-CIA® 5-Clone Cocktail + LPS Kit (10 mg)	10 mg/ml x 1 ml (for 5 mice)	53010
Arthrogen-CIA® 5-Clone Cocktail + LPS Kit (40 mg)	10 mg/ml x 4 ml (for 20 mice)	53040
Arthrogen-CIA® 5-Clone Cocktail + LPS Kit (100 mg)	10 mg/ml x 10 ml (for 65 mice)	53100
Lipopolysaccharide from <i>E.coli</i> O111:B4	0.5 mg/ml x 5 ml	9028

\*Antibody dosing and animal counts will depend on the mouse strain used

## Materials Required for CIA Experiment

### Adjuvants

Complete Freund's Adjuvant (CFA), which contains *Mycobacterium tuberculosis* (MT) is essential for the induction of arthritis in mice. Unlike rats, mice do not develop arthritis by immunizing with type II collagen emulsified with Incomplete Freund's Adjuvant (IFA).

Description	Quantity	Catalog #*
IFA	5 ml	7002
CFA, MT 1 mg/ml	5 ml	7008
CFA, MT 2 mg/ml	5 ml	7009
CFA, MT 3 mg/ml	5 ml	7015
CFA, MT 4 mg/ml	5 ml	7001
CFA, MT 5 mg/ml	5 ml	7023

### Type II Collagen

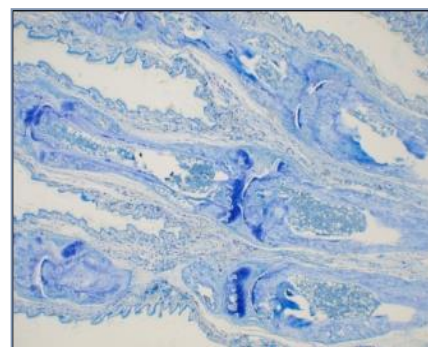
Highly purified, native type II collagen prepared under a defined protocol should be used, as contaminants or denatured collagen can fail to induce arthritis, resulting in unreliable data.

Species	Quantity	Catalog #*
Chick II	10 mg	20011
Chick II, 2 mg/ml	5 ml	20012
Bovine II	10 mg	20021
Bovine II, 2 mg/ml	5 ml	20022
Porcine II	10 mg	20031
Porcine II, 2 mg/ml	5 ml	20032

\*Chondrex, Inc. provides more species of type II collagen and more concentrations of CFA than is listed above. For more information, please contact [support@chondrex.com](mailto:support@chondrex.com) or visit [www.chondrex.com](http://www.chondrex.com).



CAIA in DBA/1 Mouse



CIA Mouse Forepaw