

Arthrogen-CIA® Arthritogenic Monoclonal Antibody

Catalog # 53100

For Research Use Only - Not Human or Therapeutic Use

DESCRIPTION:	Mouse monoclonal anti-type II collagen 5 clone antibody cocktail kit with LPS from E. Coli 0111:B4
APPLICATION:	Use for collagen antibody induced arthritis (CAIA) in mice
QUANTITY:	Cocktail: 10 mg/ml, 10 ml LPS: 0.5 mg/ml, 7 ml
FORM:	A cocktail of 5 monoclonal antibodies, clone A2-10 (IgG2a), F10-21 (IgG2a), D8-6 (IgG2a), D1-2G (IgG2b), and D2-112 (IgG2b), recognizing the conserved epitopes on various species of type II collagen. Dissolved in PBS, pH 7.2. Clones A2-10, D1-2G, and D2-112 recognize individual epitopes clustered within the 167 amino acid peptide fragment called Lyc1 (124-290) of the CB11 fragment (124-402) of type II collagen. Clones F10-21 and D8-6 recognize epitopes within the 83 amino acid peptide fragment called Lyc2 (291-374) of the CB11 fragment of type II collagen.
SOURCE:	Mouse
CROSS-REACTIVITY:	Cross-reacts (by more than 95%) to most species of type II collagen including mouse, porcine, chick*, bovine, human, rat, monkey, rabbit, equine and dog. *D2-112 does not cross-react with chick type II collagen.
USAGE:	Administration of the monoclonal antibody cocktail by IV injection (i.e. tail vein) is recommended. Intraperitoneal (IP) injection can also be used. However without LPS, the severity of arthritis tends to be lower. The susceptibility to antibody cocktail and LPS varies among strains of mice, the breeder, individual animals as well as animal handling and environmental conditions. Running a pilot study using a small number of animals before conducting a large-scale experiment is strongly recommended. Each investigator must determine the best method for their experimental purpose.
ANIMALS:	7-8 weeks of age or more; high responder mice: DBA/1, Balb/c, B10.RIII, C.B-17, scid/scid, or 129/Sv; low responder mice: C57BL/6 or C57BL/6 background. Sensitivity to CAIA may vary depending on mouse vendor and facility.
PROTOCOL:	A) Induction of arthritis by monoclonal antibody cocktail without LPS Day 0: Inject 6-10 mg of 5-clone cocktail by IV. Note: Arthritis will be observed on day 2-3. Balb/c mice and DBA/1 mice can be used without LPS.

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- B) Induction of arthritis with a combination of monoclonal antibody cocktail and LPS in CAIA susceptible mice (DBA/1, Balb/c, B10.RIII, C.B-17, scid/scid, or 129/Sv)

Day 0: Inject 1.5 mg of 5-clone cocktail by IV or IP injection.

Day 3: Inject 25-50 µg of LPS by IP injection.

Note: Moderate to severe arthritis will be observed on day 3-4 and peak around day 7-10.

- C) Induction of arthritis with a combination of monoclonal antibody cocktail and LPS in CAIA low responder mice (C57BL/6 or C57BL/6 background)

Day 0: Inject 5 mg of 5-clone cocktail by IV or IP injection.

Day 3: Inject 25-50 µg of LPS by IP injection.

Note: Moderate to severe arthritis will be observed on day 3-4 and peak around day 7-10. An injection of LPS on day 10-14 can be used to re-stimulate inflammatory arthritis.

STORAGE TEMPERATURE: -80°C

STABILITY: 2 years

REFERENCES: Terato K. et al. J. Immunol. 148: 2103-2108 (1992)
Terato K. et al. Autoimmunity 22: 137-147 (1995)
Yoshino S. et al. Submitting for publication (2008) - 5-clone cocktail

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