

ArthritoMab™ Arthritis Inducing Antibody Cocktail for use in anti-collagen antibody induced arthritis (CAIA)

Catalog Number CIA-MAB-2C

For research use only

INTRODUCTION

A reformulated cocktail of 4 monoclonal antibodies for the induction of arthritis as an alternative to the widely used collagen-induced arthritis (CIA) model. Many transgenic strains of mice are on a C57BL/6 background. However, this strain is refractory to arthritis induction either by CIA or CAIA. Traditionally to overcome this in the CAIA model an increased dose of antibody cocktail is given. This reformulated cocktail of antibodies is optimized for production of arthritis in C57BL/6, inducing arthritis with lower doses of antibody. This new formulation can also be used in other strains of mouse, which traditionally require greater amounts of cocktail.

REAGENTS PROVIDED

Arthritogenic Monoclonal Antibody cocktail, Concentration 20 mg/mL
Lyophilized LPS from *E. coli* 055:B5, 5 mg

MATERIALS NEEDED BUT NOT PROVIDED

Mice C57BL/6. (see note 2)

- approximately 8 - 10 weeks of age
- approximate weight: 20 g

LPS PREPARATION

- Reconstitute 5 mg LPS with 1 mL of sterile PBS in a sterile hood. This gives a 5 mg/mL solution.
- Vortex briefly and check all the LPS is in solution. Re-vortex if required.
- Transfer the reconstituted LPS to a sterile 10 mL glass container, plastic is not recommended, containing 8 mL of sterile PBS.
- Wash out the LPS vial with 1 mL of sterile PBS, adding this to the glass container to give 10 mL of 0.5 mg/mL LPS.
- 200 μ L of this solution gives 100 μ g of LPS.

DISEASE INDUCTION

Day 0: Administer 4 mg (200 μ L) mAb cocktail intravenously (iv). This can vary with mouse strain and laboratory and should be optimized accordingly. Typically, 2-8 mg per animal iv is recommended. Intraperitoneal (ip) administration can also be used.

Day 3: Administer 100 μ g (200 μ L) LPS ip. This can vary with mouse strain and laboratory and should be optimized accordingly. Typically, 50-100 μ g on day 3-6 is recommended.

Observe arthritis score and paw thickness throughout the study. Initial symptoms of arthritis typically appear on Day 2 but will increase in appearance after LPS boost.

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STORAGE Shipped on blue ice packs. (Product may thaw upon arrival without affecting performance)
Store at -20°C and protect from direct light upon arrival.

NOTES 1. Variations may occur from lab to lab and the protocol may need to be optimized at specific labs or for specific strains used. Items for consideration include the housing environment, water, and feed since exposure to environmental LPS can result in a level of LPS tolerance which may reduce arthritis severity.

REFERENCE Nandakumar, K.S. & Holmdahl, R. (2005) J Immunol Methods 304:126.

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