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

Catalog Number CIA-MAB-2C

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, 2.5 mg

MATERIALS NEEDED

Mice C57BL/6. (see note 2)
• approximately 8 - 10 weeks of age
• approximate weight: 20 g

LPS PREPARATION

• Reconstitute 2.5 mg LPS with 0.5 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 glass container, plastic is not recommended, containing 4 mL of sterile PBS.
• Wash out the LPS vial with 0.5mL of sterile PBS, adding this to the glass container to give 5 mL of 0.5 mg/mL LPS.
• 200 μL of this solution gives 100 μg of LPS.

DISEASE INDUCTION

Day 0: Administer 4 mg (200 μL) 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 μg (200 μL) LPS ip. This can vary with mouse strain and laboratory and should be optimized accordingly. Typically 50-100 μg 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

Keep at -20 °C, avoid freeze-thaw cycles.

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.

2. Animal strains may vary from vendor to vendor. Variability has been observed with the C57BL/6 mice from Jackson Laboratory. If you source from Jackson Laboratory, be sure to order strain C57BL/6NJ and not C57BL/6J.

REFERENCE