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| INTRODUCTION | A cocktail of 4 monoclonal antibodies for the induction of arthritis as an alternative to the widely used collagen-induced arthritis (CIA) model. |
| REAGENTS PROVIDED | Arthritogenic Monoclonal Antibody cocktail, Concentration 10 mg/mL Lyophilized LPS from <i>E.coli</i> 055:B5, 2.5 mg |
| MATERIALS NEEDED BUT NOT PROVIDED | Mice DBA/1, Balb/c or any other strains. <ul style="list-style-type: none">• approximately 8 - 10 weeks of age• approximate weight: 20 g |
| LPS PREPARATION | <ul style="list-style-type: none">• 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 0.5 mL 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 | <p>Day 0: Administer 2 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.</p> <p>Day 3: Administer 100 µg (200 µL) LPS ip. This can vary with mouse strain and laboratory and should be optimised accordingly. Typically 50-100 µg on day 3-6 is recommended.</p> <p>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.</p> |
| STORAGE | Keep at -20 °C, avoid freeze-thaw cycles. |
| NOTES | 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) <i>J Immunol Methods</i> 304:126. |

North America: 1-888-USMDBIO | International: +41-44 986 2628 | products@mdbiosciences.com | www.mdbioproducts.com

