NEUROSCIENCES INNOPROFILE™

Ref. P10324

Mouse microglia provided by Innoprot are purified from primary mouse cortical cell cultures using Innoprot's advanced techniques. Microglia from Innoprot are isolated from E13.5 mouse embryos, cryopreserved at secondary cultures and delivered frozen. Available in formats of >0.5 and 1 million cells per vial in 0.5 ml volume. Microglia are characterized by immunodetection of Iba-1. Microglia are guaranteed to further culture in the conditions provided by Innoprot.

Microglia are essential glial cells in the CNS, acting as the brain's resident macrophages, crucial for immune surveillance and response. They present antigens to CD4+ T cells, perform Fc-mediated phagocytosis, and are involved in various brain processes by interacting with neurons and other glial cells, producing growth factors, cytokines, and other key molecules.

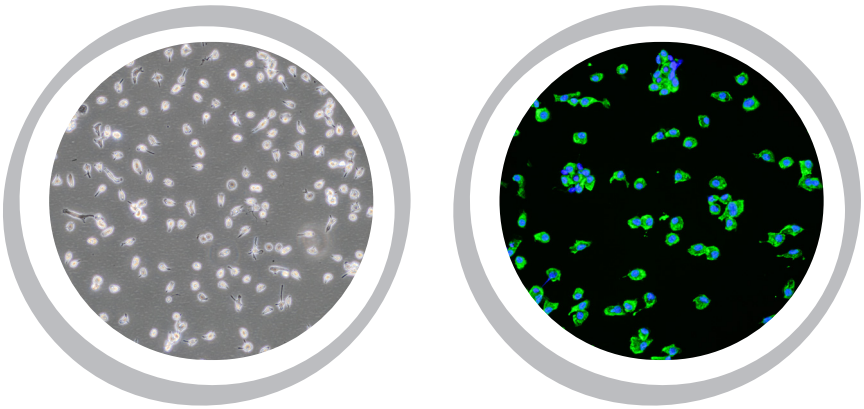
Innoprot

CORTICAL MICROGLIA

from Swiss mouse

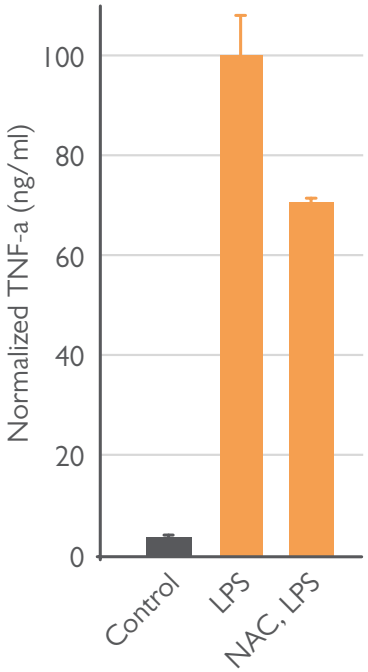
Recommended Medium
Ref: P60116: Microglia Medium

Product Characterization
Immunofluorescent method for Iba-1 (Abcam #ab178847), detection of secreted TNF-α by ELISA (R&D #DY210). Negative for mycoplasma, bacteria, yeast and fungi.



Phase-contrast

Iba-1



50,000 mouse microglia were seeded per well in an M96 plate. The following day, the cells were either pre-treated with 0.5 mM N-acetylcysteine (NAC) or left untreated. After this, the cells were exposed or not to 500 ng/ml lipopolysaccharide (LPS) for 2.5 hours. Finally, the TNF-α present in the extracellular medium was quantified using ELISA.

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Unpacking

For cryopreserved cells: If there is dry ice in the package and you are not going to culture cells right way, place cryovial(s) immediately into liquid nitrogen. If there is no dry ice left in the package, thaw and culture the cells immediately.

Set up culture after receiving the order:

1. Coat culture vessel with 0.1 mg/ml poly-D-lysine and incubate at 37°C for one hour. Wash the plate with sterile water three times.

2. Medium preparation: Decontaminate the external surfaces of medium and medium supplements with 70% ethanol and transfer them to sterile field. Aseptically open each supplement tube and add them to the basal medium with a pipette. Rinse each tube with the medium to recover the entire volume.

3. Set up culture: Prepare 10-20 M96 wells for each cryovial. Prepare the appropriate amount of medium supplemented with 10% heat-inactivated FBS to facilitate cell adhesion to the plate (recommended final volume: 200 µl per well) and allow medium to equilibrate in 37°C, 5% CO_2 incubator for at least 30 min.

4. Thawing of cells: Place the vial in a 37°C waterbath, hold and rotate the vial gently until the contents are completely thawed. Remove the vial from the waterbath immediately, rinse it with 70% ethanol, wipe it dry, and transfer it to a sterile field. Remove the cap, being careful not to touch the interior threads with fingers.

5. Pipet the cell suspension, transfer it into the equilibrated culture medium, mix gently and distribute the appropriate volume to each well. A high seeding density is recommended. Return the culture plate to the incubator at 37°C, 5% CO_2.

6. Once the cells are attached to the plate, very carefully change the growth medium to remove the residual DMSO, unattached cells and FBS. The first change of medium can be done between the first 4 and 16 hours after starting the culture.

Product Use

These products are for research use only. Not approved for human or veterinary use, for application to humans or animals, or for use in vitro diagnostic or clinical procedures.
Important: Cryopreserved cells are very delicate. Thaw the vial in a 37°C waterbath and return them to culture as quickly as possible with minimal handling.

Caution: Handling animal derived products is potentially bioharzadous. Although each cell strain testes negative for microbial, diagnostic tests are not necessarily 100% accurate, therefore, proper precautions mush be taken to avoid inadvertent exposure. Always wear gloves and safety glasses when working these materials. Never mouth pipette. We recommend following the universal procedures for handling products of human origin as the minimum precaution against contamination (Grizzle, W. E., and Polt, S. S., 1988. Guidelines to avoid personal contamination by infective agents in research laboratories that use human tissues. J Tissue Culture Methods. 11-4).

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