

Cortical Astroglia Kit

Catalog #: PC35131

Product Format: T25 Flask

Enclosed is a T25 culture flask containing live adherent primary cortical astroglia obtained from E18 Sprague Dawley rats and a 12 ml tube of NbASTRO culture medium (Neurobasal®/Horse Serum/GlutaMAXTM). Live adherent astroglia are stored in ~65ml of our shipping medium. For cell survival, an immediate media exchange is required.

Preparations:

- 1. Remove the T25 culture flask and 12 ml tube of NbASTRO medium from the shipping container
- 2. Allow both the T25 culture flask and the 12 ml tube of NbASTRO medium to equilibrate to room temperature

Media Exchange (Room Temperature in a Sterile Hood)

- 1. Remove the parafilm seal
- 2. Sterilize the T25 culture flask lid with 70% EtOH and allow to air dry
- 3. For each T25 culture flask (one flask at a time)
 - a. Aspirate off the shipping media
 - b. Immediately add 5.0 mL of NbASTRO medium to the T25 culture flask
 - c. Repeat for all remaining T25 flasks
- 4. Incubate the T25 culture flask(s) at 37°C, 5% CO₂, 9% O₂, 95% humidity (or ambient O₂)
- Change ½ of the medium with fresh, 37°C, CO₂ equilibrated NbASTRO every 3-4 days.
- 6. After 12-14 days, astroglia will be 90% confluent and ready to harvest or passage.

Viability Assay:

- 1. Rinse twice with 37°C HBSS (0.2 ml/cm² of substrate).
- 2. Prepare dye mix from an acetone stock of 15 mg/ml fluorescein diacetate and an aqueous stock of 4.6 mg/ml propidium iodide, dilute 15 µl of each into 1.5 ml HBSS (1:100 dilution).
- 3. Add 20 µl of dye mix from step 2 to every 0.2 ml of HBSS added in step 1 (1:10 diultion)
- 4. After ~1 minute count live cells using blue excitation appropriate for fluorescein fluorescence (green cells). Count dead cells with green excitation for propidium iodide fluoscence (small red nuclei)
- Viability = (green cells/unit area)/(total cells plated/unit area) or Survival = green cells/(green + red cells)

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