Miltenyi Biotec

AstroMACS Medium

For neonatal and adult primary astrocyte cultivation

AstroMACS Medium is a serum-free, ready-to-use media formulation for the maintenance of primary astrocytes from both neonatal and adult mouse neural tissue. The optimized supplements are especially designed to support low density growth and healthy morphology of astrocytes.

- **Serum-free**
- **Enables astrocyte culture with low seeding densities**
- **Step-by-step protocol for adult astrocyte isolation and cultivation**

▶ **miltenyibiotec.com/astromedium**

Superior astrocyte growth even with low seeding densities

Astrocytes cultured in AstroMACS Medium show an increased expansion rate. Hence, superior astrocyte growth is achieved even when seeded with low density.

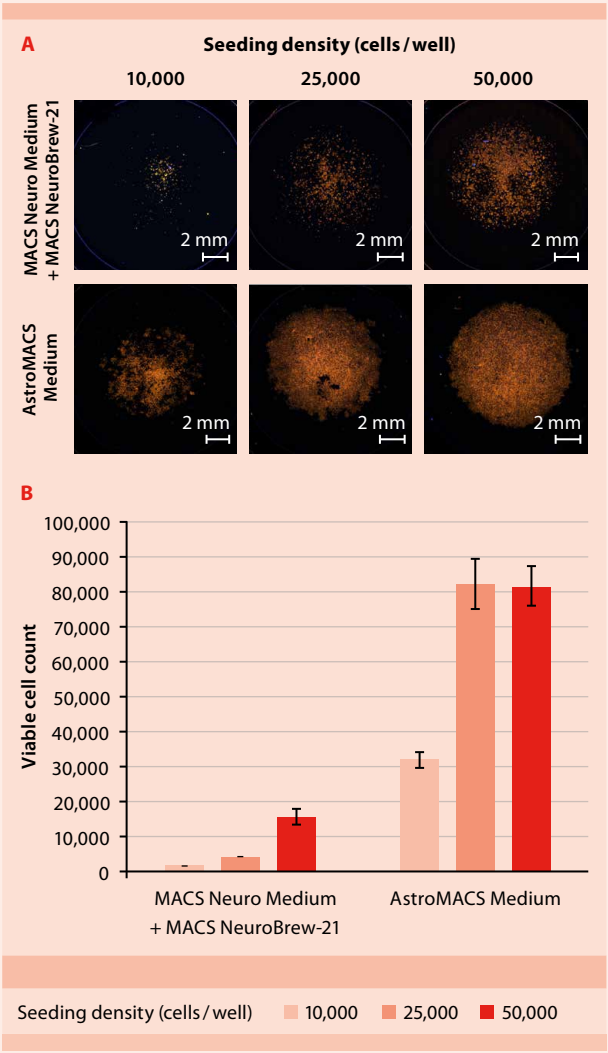

Figure 1: Neonatal astrocytes were isolated from P4 mice using the Neural Tissue Dissociation Kit (P) and the Anti-ACSA-2 MicroBead Kit. Cells were cultured in MACS® Neuro Medium and MACS NeuroBrew®-21 (top) or in AstroMACS Medium (bottom) at different densities in a 24 well imaging plate for 7 days. Cells were fixed and stained with Anti-GLAST antibody (yellow) and DAPI (blue) and dead and viable astrocytes were analyzed with the Cytation™ Cell Imaging Multi-Mode Reader. (A) Microscopy images of one representative well. (B) Quantitative data of 4 replicates.

Follow this link to download the step-by-step protocol: **www.miltenyibiotec.com/astroprotocol**

Preservation of healthy astrocytes for downstream experiments

Neonatal (fig. 2) and adult astrocytes (fig. 3A) cultured in AstroMACS Medium show healthy astrocyte morphology and cell-cell contacts.

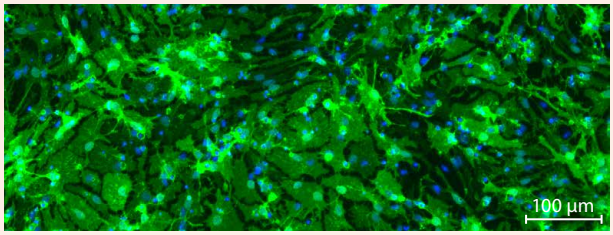

Figure 2: Neonatal astrocytes were isolated from P4 mice using the Neural Tissue Dissociation Kit (P) and the Anti-ACSA-2 MicroBead Kit, and cultured in AstroMACS Medium at a density of 10,000 cells / well in a 24 well imaging plate for 7 days. Cells were then fixed and stained with Anti-GLAST antibody (green) and DAPI (blue).

AstroMACS Separation Buffer removes dead cells and enhances adult astrocyte culture

In our step-by-step protocol for adult astrocyte isolation and cultivation, dead cells are removed during cell separation using the AstroMACS Separation Buffer. The AstroMACS Medium subsequently provides a healthy culture environment for adult astrocytes.

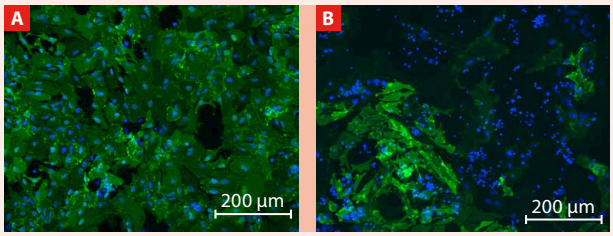

Figure 3: Adult astrocytes were isolated from the brain of 8-week-old mice using the Adult Brain Dissociation Kit and the Anti-ACSA-2 MicroBead Kit in combination with (A) or without (B) the AstroMACS Separation Buffer. Cells were then cultivated in AstroMACS Medium at a density of 100,000 cells / well in a 24 well Imaging Plate for 7 days. Cells were fixed and stained with Anti-GLAST antibody (green) and DAPI (blue).

Ordering information

Product	Order no.
AstroMACS Medium (contains MACS Neuro Medium, MACS NeuroBrew-21 and AstroMACS Supplement)	130-117-031
AstroMACS Separation Buffer	130-117-336
MACS Neuro Medium	130-093-570
MACS NeuroBrew-21	130-093-566
Imaging Plate CG 1.5 (24 well)	130-098-263
Anti-GLAST (ACSA-1) pure, human, mouse, rat	130-095-822
Anti-ACSA-2 MicroBead Kit, mouse	130-097-678

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