Primary oligodendrocyte precursor cell culture

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SCOPE OF THE METHOD

The Method relates to	Animal health, Human health
The Method is situated in	Basic Research
Type of method	In vitro - Ex vivo
This method makes use of	Animal derived cells / tissues / organs
Species from which cells/tissues/organs are derived	Mus Musculus
Type of cells/tissues/organs	Brain (cortex)

DESCRIPTION

Method keywords

oligodendrocyte

shakeoff

cell culture
isolation

Scientific area keywords

basic research
fundamental research
differentiation
neuroscience

Method description

This method describes the steps from a living mouse to a single cell solution of primary oligodendrocyte precursor cells.

Lab equipment

Method status

Internally validated

PROS, CONS & FUTURE POTENTIAL

Advantages

Primary cultures give rise to a condition more similar although not identical to the *in vivo* situation when compared to cell line experiments ;
Methodoligcally feasible ;
Highly reproducible ;
Astrocytes can be simultaneously isolated ;
Oligodendrogenesis can be evaluated purely.

Challenges

Interspecies differences ;
Terminal experiment for the lab animal ;
Time consumable (2 weeks to reach an OPC culture, additional time required to reach oligodendrocyte stage).

Future & Other applications

The protocol can be adapted and used in other animal species.

REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION

Associated documents

Primary OPC isolation mouse .docx

PARTNERS AND COLLABORATIONS

Organisation
Name of the organisation Hasselt University
Department Biomed Neuro-Immune Connection and Repair
Country Belgium
Geographical Area Flemish Region

Coordinated by

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