

# Primary oligodendrocyte precursor cell culture

Created on: 14-08-2019 - Last modified on: 27-08-2019

## SCOPE OF THE METHOD

<b>Alternative method relates to</b>	Animal health, Human health
<b>Alternative method is situated in</b>	Basic Research
<b>Type of alternative method</b>	In vitro - Ex vivo
<b>This method makes use of</b>	Animal derived cells / tissues / organs
<b>Species from which cells/tissues/organs are derived</b>	Mus Musculus
<b>Type of cells/tissues/organs</b>	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, methodologically 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

*Coordinated by*



*Financed by*

