Not just nociception: regulation of postnatal neurogenesis by TRPV1

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Introduction

Aim

Evaluate the effect of CBDV and Capsaicin on SVZ-derived neural stem cells

Methods

The Neurosphere Assay
For detailed protocol scan the QR code below

Soares et al, J. Vis. Exp. (2020)

Results

Cell Viability

Cell Proliferation

Cell Differentiation

Oligodendrocyte Maturation

DIV7

Conclusions

CELL VIABILITY

CBDV promotes cell viability

Capsaicin induces cell death

CELL PROLIFERATION

CBDV and Capsaicin increase cell proliferation

NEURONAL DIFFERENTIATION

CBDV and Capsaicin induce neuronal differentiation in early stages of cell differentiation

OLIGODENDROCYTE DIFFERENTIATION

Capsaicin decreases the number of OPCs in later stages of development

CBDV and Capsaicin inhibit the maturation of oligodendrocytes

All data is shown as Mean±SEM.
One-way ANOVA followed by Dunnett's multiple comparisons test. ns: p>0.05;
*p<0.05; **p<0.01; ***p<0.001.
Outliers were identified and removed from the analysis by Mean ± (2xSD). N=4

Next Steps

- Evaluate the effects of TRPV1 antagonists on NSPC proliferation, survival and differentiation;
- Characterize the expression of TRPV1 in vivo;

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