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Title: The ratio of 1/3 linoleic acid to alpha linolenic acid is optimal for oligodendrogenesis of embryonic neural stem cells

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The ratio of 1/3 linoleic acid to alpha linolenic acid is optimal for oligodendrogenesis of embryonic neural stem cells

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Running title: Optimal ratio of LA/ALA PUFAs on eNSCs

Highlights

- • In this study, we investigated the effect of various concentrations and ratios of linoleic acid (LA) and alpha linolenic acid (ALA), which belong respectively to ω -6 and ω -3 PUFAs, on the proliferation and differentiation of eNSCs.
- • Low or high concentrations of ALA, but not LA, and the ratio of 1:3 of LA/ALA significantly increased neurospheres size, frequency and cell numbers, in comparison to controls.
- • Low or high concentrations of ALA, but not LA, and the ratio of 1:3 of LA/ALA had a significant increase on the mRNA expression levels of Notch-1, Hes-1 and Ki-67.

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