

Differentiation Protocol for: Neural Progenitors

Neural progenitors were derived in DM containing Noggin and SB431542 to induced neural differentiation. Cultures were split at day 7 and 14. FGF2 was added at day 14 to promote neural progenitor expansion. On day 28 the culture was split and neural progenitors expanded in DMEM/F12/B27 containing heregulin and FGF2. Q-PCR analysis demonstrated that these NP cells expressed SOX1, PAX6, and Musashi, but were negative for OCT4, Rex1, Nanog, and CD9, in comparison to undifferentiated cells. Immunofluorescence confirmed that these progenitors were negative for OCT4, but expressed Sox2 and Nestin. This population can be expanded and maintained for >3 months in defined conditions.

Reference:

Schulz et al. 2003. BMC Neuroscience 4: 27;
Schulz et al. 2004. Stem Cells 22: 1218–1238