

hESC plating

Day -1 0 1 7 15

2% DMSO

1% DMSO

NPC Generation

OPC Differentiation

OL Maturation

Medium

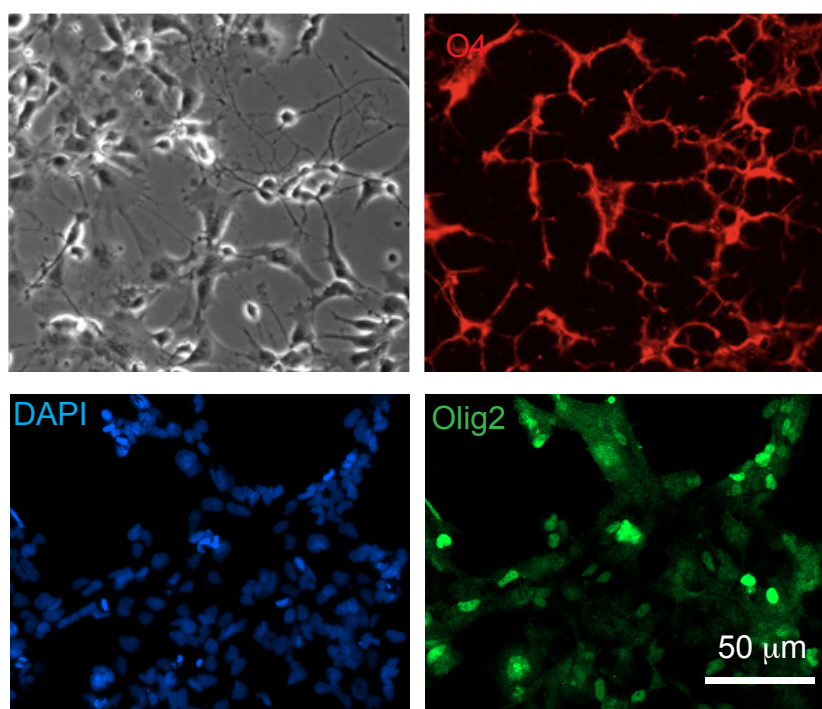
mTeSR Plus

StemDiff
SMADi
Neural
Induction kit -
Monolayer
protocol

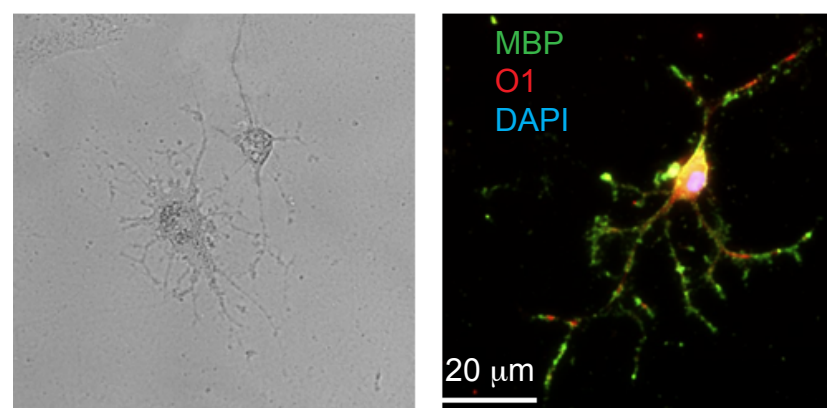
DMEM/F12
B27
N2
PDGF-AA
SAG
bFGF

NBA
B27
T3
cAMP
Clemastine

iOPC
DAY 15



iOL
DAY 28



A bar graph showing the normalized PAX6 mRNA level for three cell types at different time points. The y-axis is labeled 'PAX6 mRNA level (norm.)' and ranges from 0 to 1.4. The x-axis shows three groups: NPC (Day 7), iOPC (Day 14), and iOL (Day 28). The NPC (Day 7) bar is grey and reaches a value of 1.0. The iOPC (Day 14) bar is blue and reaches approximately 0.08, with three asterisks (***) above it. The iOL (Day 28) bar is red and reaches approximately 0.02, also with three asterisks (***) above it. A dashed horizontal line is drawn at the 1.0 level.

Cell Type	Time Point	PAX6 mRNA level (norm.)	Significance
NPC	Day 7	1.0	
iOPC	Day 14	~0.08	***
iOL	Day 28	~0.02	***

OPC markers

OL markers

Y-axis: Fold Change (0 to 6)

X-axis: Markers (CSPG4, NKX2.2, PDGFRA, OLIG2, CLDN11, MBP, PLP1)

Legend:

- iOPC-Tempo (Dark Blue)
- iOPC (Day 15 -DMSO) (Medium Blue)
- iOPC (Day 15 +DMSO) (Light Blue)
- iOL-Tempo (21 days) (Dark Orange)
- iOL (Day 28 -DMSO) (Medium Orange)
- iOL (Day 28 +DMSO) (Light Orange)

Significance markers: * (p < 0.05), *** (p < 0.001), N.D. (Not Determined)

Marker	iOPC-Tempo	iOPC (Day 15 -DMSO)	iOPC (Day 15 +DMSO)	iOL-Tempo (21 days)	iOL (Day 28 -DMSO)	iOL (Day 28 +DMSO)
CSPG4	1.0	1.4	3.2*	0.1***	0.1***	0.1***
NKX2.2	1.0	1.6	3.0*	0.1***	0.1***	0.1***
PDGFRA	1.0	1.7	2.8*	0.1***	0.1***	0.1***
OLIG2	1.0	1.5	2.6	0.9	1.5	1.1
CLDN11	1.0	0.9	1.0	2.7*	5.2*	4.8*
MBP	1.0	1.0	1.0	1.4	2.1	N.D.
PLP1	1.0	1.0	1.1	2.8*	5.0*	4.4*

Bar graph showing Aβ concentration (pg/ml) in iN (blue bars) and iOPC (orange bars) groups. The y-axis represents Aβ concentration in pg/ml (ELISA), ranging from 0 to 4. The x-axis shows three categories: Aβ 40, Aβ 42, and 40/42 ratio. A dashed horizontal line indicates a baseline level at 1.0 pg/ml. Significance levels are indicated by asterisks (***) above the bars.

Category	iN (pg/ml)	iOPC (pg/ml)
Aβ 40	~0.95	~2.8
Aβ 42	~0.95	~3.4
40/42 ratio	~0.95	~0.7