

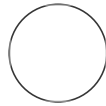


AUG 26, 2023

🌐 Differentiation of SH-SY5Y cells

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OPEN ACCESS



DOI:
dx.doi.org/10.17504/protocols.io.dm6gp3jj1vzp/v1

Protocol Citation: Shenjie Wu, Nancy C. Hernandez Villegas, schekman 2023. Differentiation of SH-SY5Y cells. **protocols.io**
<https://dx.doi.org/10.17504/protocols.io.dm6gp3jj1vzp/v1>

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Protocol status: Working
We use this protocol and it's working

Created: Aug 04, 2023

ABSTRACT

This protocol describes a standard procedure to differentiate SH-SY5Y cells into dopaminergic neurons using retinoic acid

MATERIALS

Reagents

Reagent	Catalog number	Manufacturer
SH-SY5Y cells		Cell Culture Facility, UC Berkeley
DMEM, High Glucose, GlutaMAX Supplement	10566-024	Thermo Scientific
Mem Non Essential Amino Acids Solution (100X)	11140050	Thermo Scientific
Corning® 100 mL Sodium Pyruvate, Liquid 100 mM	MT25000CI	Corning
FBS		
Retinoic acid	R2625	Sigma

Differentiation of SH-SY5Y cells

- 1 SH-SY5Y neuroblastoma cells were maintained in DMEM supplemented with 1× nonessential amino acid (NEAA), 1× sodium pyruvate, and 10% FBS.
- 2 Differentiation was induced by lowering the FBS in culture medium to 1% plus 10 μ M RA.
- 3 Cell medium was replaced each 3 days to replenish RA.
- 4 Cell morphology was monitored by microscopy and experiments on SH-SY5Y cells were performed from D6 of differentiation.