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Dopaminergic neuron differentiation kit (Qk517)

Type: Growth factor discovery kits

Available for purchase: Qk517: Dopaminergic neuron differentiation kit

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Product Information

For validating the ability of induced pluripotent stem (iPSC) lines to differentiate into dopaminergic neurons.

The dopaminergic neuron differentiation kit is a comprehensive tool designed to assess and confirm the differentiation potential of both newly derived and established iPSC lines. This kit enables researchers to evaluate the ability of iPSCs to differentiate into dopaminergic neurons, a specialized neuronal subtype essential for motor control, reward processing, and cognitive functions. Dopaminergic neurons play a crucial role in neurological health, and their degeneration is a hallmark of Parkinson's disease.

The kit includes carefully optimized growth factors required to efficiently guide iPSCs toward the dopaminergic neurons. Each kit is sufficient for differentiation of 2x 96 well plates for 35 days.

Species reactivity

- human

Product Information

- >98%, by SDS-PAGE quantitative densitometry
- Animal origin-free (AOF) and carrier protein-free
- Expressed in *E. coli*
- Bioactivity Guaranteed
- Manufactured in our Cambridge, UK laboratories
- Lyophilized

Reconstitution instructions

- Discovery kits

Featured applications

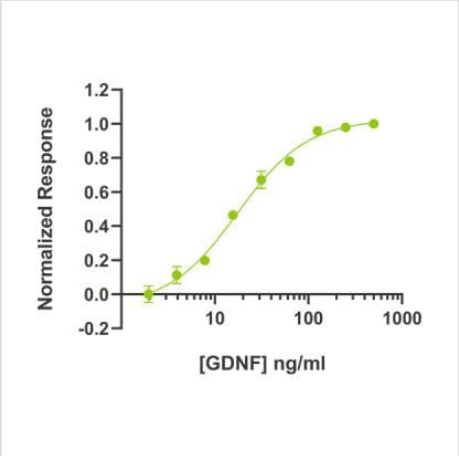
- Differentiation of midbrain dopaminergic neurons

Further quality assays

- Mass spectrometry: single species with expected mass
- Recovery from stock vial: >95%
- Endotoxin: <0.05 EU/µg protein

Scientific Information

Bioactivity



Human BDNF - Qk050 - **25 µg**

Used to maintain neurons and differentiate and mature human pluripotent stem cell-derived neural progenitors to cortical and motor neurons and cortical organoids.

Human GDNF - Qk051 - **25 µg**

Used to maintain neurons and cortical organoids and to differentiate dopaminergic neurons from human pluripotent stem cell-derived neural progenitors. GDNF also facilitates the differentiation of neural progenitors to astrocytes.

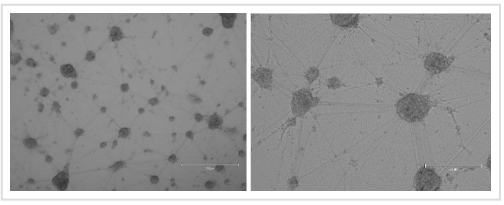
Human TGF-ß3 – Qk054 - **25 µg**

Member of the TGF-β family, a family involved in regulating cell survival, proliferation and differentiation. TGF-β3 is used in human pluripotent stem cell maintenance media.

Human FGF-8a - Qk059 - **25 µg**

Often used for the differentiation of induced pluripotent stem cells, embryonic stem cells, and neural stem cells.

Purity



iPSC differentiated in dopaminergic neurons. Day 35 differentiated mature dopaminergic neurons (A, scale bar = 750 µM, B, scale bar = 300 µM). iPSC differentiated using dopaminergic neuron differentiation kit (Qk517).

Application note | Differentiation of induced pluripotent stem cells (iPSCs) into dopaminergic neurons

Original product page: https://ryan.calliope-alpha.ts.net/product/dopaminergic-neuron-differentiation-kit-qk517/

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