

## Ectoderm differentiation kit (Qk515)



**Type:** Growth factor discovery kits

**Available for purchase:** Qk515: Ectoderm differentiation kit

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### Product Information

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For validating the ability of induced pluripotent stem cell (iPSC) lines to differentiate into the ectoderm lineage.

The ectoderm differentiation kit is designed to validate the differentiation potential of both newly derived and established iPSC lines. This kit enables the evaluation of the ability of iPSCs to differentiate into the ectoderm lineage, one of the three primary germ layers responsible for giving rise to the nervous system, skin, and sensory organs.

The kit includes carefully optimized growth factors and extracellular matrix required to efficiently guide iPSCs toward the ectoderm lineage. It serves as both an endpoint assay, confirming pluripotency and lineage commitment, and a platform for generating ectoderm-derived cells for further downstream applications.

Each kit is sufficient for differentiation of 8x 96 well plates.

#### 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 iPSC into ectoderm

### **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 noggin - Qk034 - 25 µg

Noggin is used in the culture of intestinal, pancreatic, lung and tumor-derived organoids and the maintenance of undifferentiated embryonic stem cells (ESC) and for stem cell differentiation into neural and microglial lineages.

#### Human FGF2-G3 (154 aa) - Qk053 - 50 µg

A thermostable engineered form of human FGF-2. Human FGF2-G3 154 aa is the 154 aa mature domain of FGF-2. The functional half-life has increased from <10 h (wild-type) to >7 days (FGF2-G3).

#### Human vitronectin - Qk120 - 500 µg

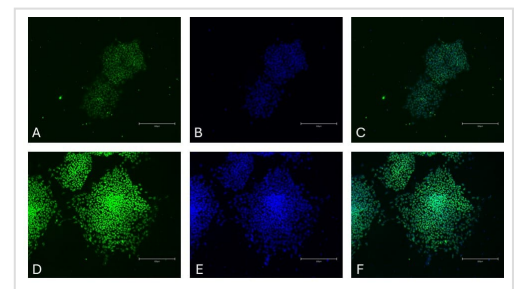
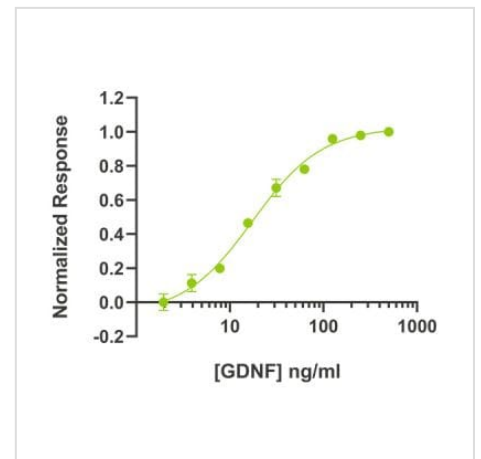
Provides a defined environment that supports the maintenance of pluripotency and is suitable for feeder-free culture, expansion, differentiation, and reprogramming of stem cells.

### Purity

#### Immunocytochemistry of neuroectoderm markers in

**differentiated iPSCs.** SRY-box transcription factor 1 (SOX1) [Green, A], Hoechst 33258 [Blue, B], combined SOX1 and Hoechst [C] and SRY-box transcription factor 2 (SOX2) [Green, D], Hoechst33258 [Blue, E], combined SOX2 and Hoechst [F]. Images were acquired using the EVOS M5000 system (scale bar = 300 µm). iPSC differentiated using the ectoderm differentiation kit (Qk515).

[Application note | Differentiation of induced pluripotent stem cells \(iPSCs\) into neuroectoderm](#)



**Original product page:** <https://qkine.com/product/ectoderm-differentiation-kit-qk515/>

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