

StemBeads® Qkine GDNF

Product Information Sheet



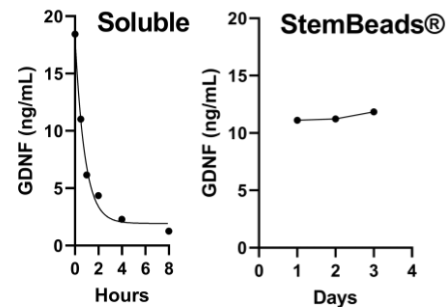
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Product Description

StemBeads® Qkine GDNF is a patented growth factor supplement that offers a novel way to culture cells with native Glial Derived Neurotrophic Factor more efficiently, with greater control and fewer medium changes. GDNF is key for supporting neural progenitor cells (NPCs) and neuronal differentiation. StemBeads® Qkine GDNF are microbeads composed of an FDA approved, biodegradable PLGA polymer that is loaded with Qkine recombinant human GDNF (Qk051) and release the encapsulated protein at a constant rate. Controlled delivery and stable levels overcome the 34 minute half-life (Figure 1) of GDNF and improve cell cultures while saving researchers valuable time and resources.

StemBeads® Qkine GDNF has been tested in multiple neuronal base media, including neural progenitor expansion media (NPEM), with enhanced cellular profiles. In these cases, StemBeads® Qkine GDNF were used with and without StemBeads® Qkine BDNF.

Figure 1



Product Information

Catalog #	Product Name	Storage	Expiration	Average Particle Size	Reconstitution
Qk-SBGD1	StemBeads® Qkine GDNF	4°C	6 months from manufacture (see label)	10 ± 5 µm diameter	Ready-to-use solution in DMEM/F12

Directions for Use:

Preparation of Media with StemBeads® Qkine GDNF

- Mix vial of StemBeads® Qkine GDNF thoroughly by vortexing or pipetting prior to use.
- Add 10 µL of StemBeads® Qkine GDNF per 1 mL of medium. This will provide cells with stable 10 ng/mL GDNF. See back page for additional release data.

Culturing with StemBeads® Qkine GDNF

- Passage your NPCs according to your typical protocol.
- The next day, remove the NPC medium and replace with StemBeads® Qkine GDNF supplemented neuronal medium. StemBeads® Qkine GDNF can be added to the neuronal medium of your choice. Be sure to mix media containing StemBeads® Qkine GDNF well before plating into culture dish.
- Change media 1-2 times per week depending on cell density and culture conditions. Cells should be passaged as required depending on density and culture method.

Note: Washing is highly recommended prior to each feed to remove cell debris and remaining beads.

Recommended Culture Schedule



Refeed and repeat as needed

Release Data

StemBeads® Qkine GDNF release in media can be adjusted slightly based on the amount of StemBeads® added or the amount of medium used. We recommend a release of 10 ng/mL, however, to fit other needs, the release can be adjusted slightly. See the chart below for reference.

Volume of StemBeads® Qkine GDNF	Volume of Medium Added	GDNF Release in Volume of Medium Added
5 µL	1 mL	5 ng/mL
10 µL	1 mL	10 ng/mL
20 µL	1 mL	20 ng/mL
10 µL	0.5 mL	20 ng/mL
10 µL	1 mL	10 ng/mL
10 µL	2 mL	5 ng/mL