

### PRODUCT DESCRIPTION

StemBeads® BDNF is a patented growth factor supplement that offers a novel way to culture cells with Brain Derived Neurotrophic Factor more efficiently, with greater control and fewer medium changes. StemBeads® BDNF are microparticles composed of an FDA approved, biodegradable polymer that is loaded with recombinant human Brain Derived Neurotrophic Factor. Under the microscope, StemBeads® will appear as small dark spheres that do not harm the cells, and with time, will break down while releasing the encapsulated protein at a controlled rate. Controlled delivery and stable levels of BDNF improve cell cultures while saving researchers valuable time and resources.

### ORDERING INFORMATION

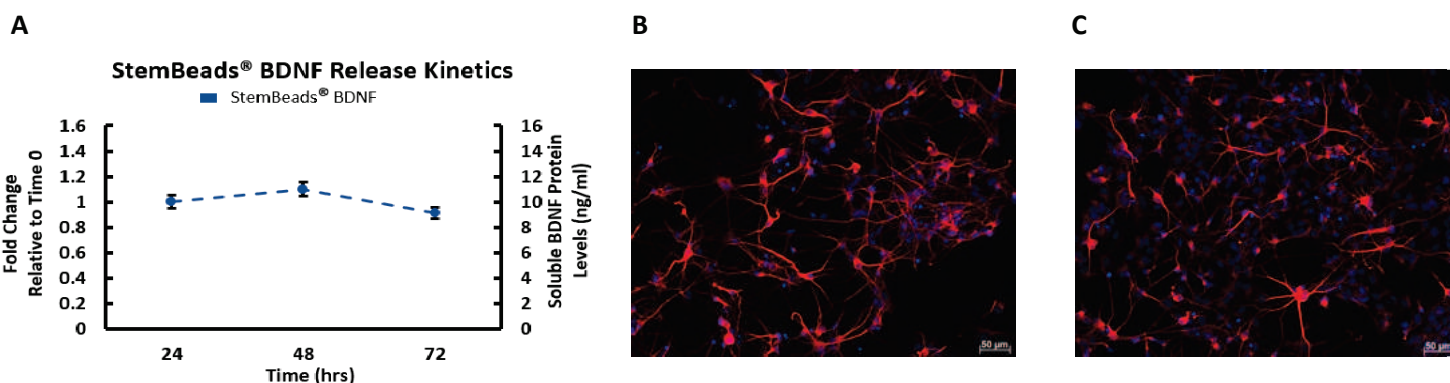
| Catalog # | Product Name    | Size | Release             |
|-----------|-----------------|------|---------------------|
| SBBD1     | StemBeads® BDNF | 1 mL | 10 µL/mL = 10 ng/mL |



### PRODUCT SPECIFICATIONS

- Reconstitution & Use:** StemBeads® BDNF are provided as a ready-to-use, 1 mL solution in DMEM/F12.
- Storage & Stability:** Upon arrival, store at 4°C. StemBeads® BDNF are stable for 6 months without loss of activity when stored at 4°C.
- Release Profile:** 10 µL/mL StemBeads® BDNF = 10 ng/mL release of soluble BDNF.
- Average Particle Size:** 10 µm diameter.

### DATA



A) Measurement of BDNF released into culture medium over a three day (72 hrs) timecourse. The medium was supplemented once at time 0 with 10 µL/mL StemBeads® BDNF generating a stable release of 10 ng/mL over the timecourse. B) StemBeads® BDNF added to iPSC-Derived Cortical Neurons: MAP2A density at 30 days. C) StemBeads® BDNF and StemBeads® GDNF added to iPSC-Derived Cortical Neurons: MAP2A density at 30 days.

### GENERAL DIRECTIONS FOR USE

- 1) Aliquot desired volume of medium.
- 2) Mix vial of StemBeads® BDNF thoroughly by vortexing or pipetting prior to use.
- 3) Add StemBeads® BDNF into aliquot of medium at the desired concentration  
e.g. A concentration of 10 µL StemBeads® BDNF per 1 mL of medium will generate a 10 ng/mL release of soluble BDNF.
- 4) Remove medium from culture dish and wash cultures twice with DMEM, PBS, F12 or basal medium.
- 5) Mix medium containing StemBeads® BDNF well and add to culture dish.
- 6) Change medium every 4-6 days, depending on cell density and culture conditions.

#### Notes:

- A) StemBeads® BDNF can also be added to medium during the passaging and plating of cells.
- B) Cells may be passaged, if required, depending on density and culture method.

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.