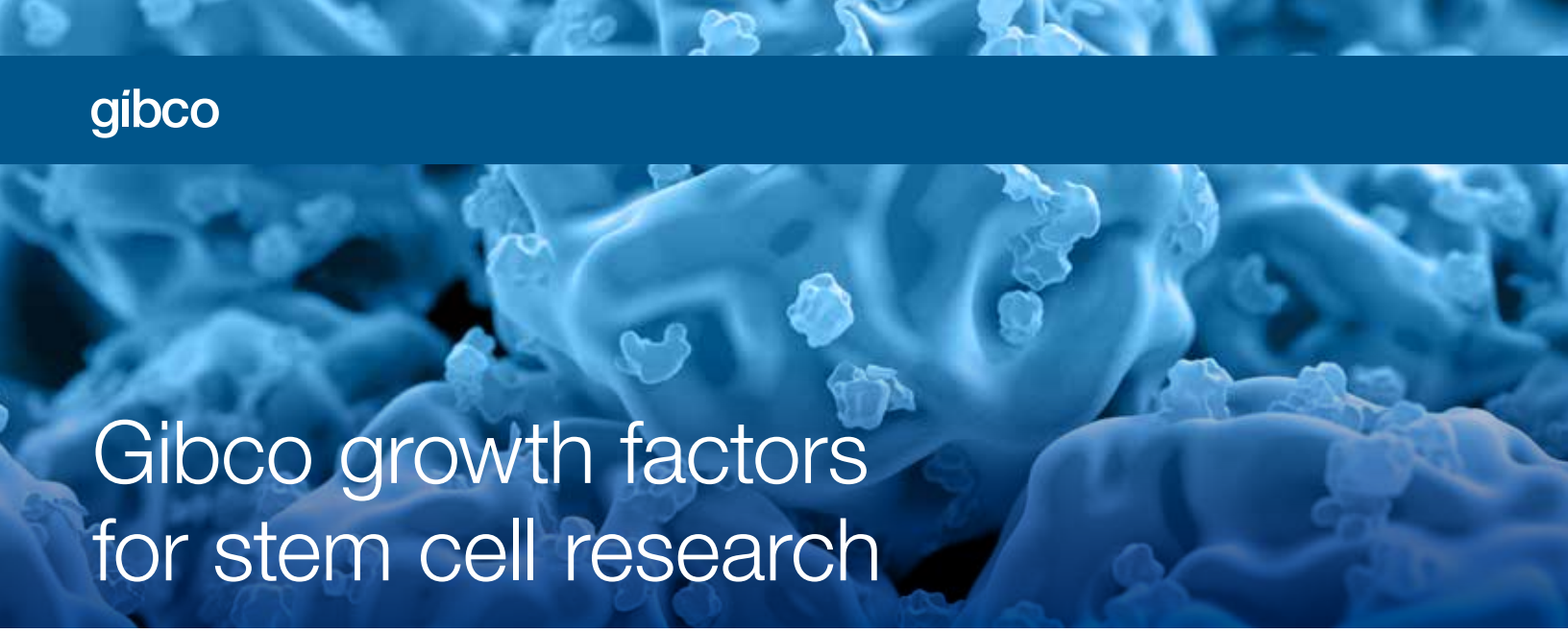
gibco



# Gibco growth factors for stem cell research

Our high-quality Gibco™ growth factors for stem cell growth, proliferation, differentiation, and maintenance offer:

- High biological activity
- High purity (≥95% pure)
- <0.1 ng endotoxin per microgram
- Proven compatibility—validated with Gibco™ media

### Transforming growth factor–beta (TGF-β)

TGF-β is involved in proliferation, differentiation, and other functions in many cell types.

### Fibroblast growth factor–basic (bFGF, FGF-basic, FGF 2)

This large FGF protein family is involved in many aspects of development, including cell proliferation, growth, and differentiation. FGF-basic is a critical component for maintaining embryonic stem cells in culture in an undifferentiated state.

### Epidermal growth factor (EGF)

EGF has a profound effect on the differentiation of specific cells *in vivo* and is a potent mitogenic factor for a variety of cultured cells of both ectodermal and mesodermal origin.

### Bone morphogenetic protein 4 (BMP4)

BMP4 is a part of the transforming growth factor–beta (TGF-β) superfamily. It plays an important role in the onset of endochondral bone formation in humans.

### Leukemia inhibitory factor (LIF)

Mouse LIF is known for its ability to maintain the pluripotency of mouse embryonic stem cells.

### Activin A

Activin A is involved in a wide range of biological processes including inflammation, neural development, and hematopoiesis.

### Sonic hedgehog (SHH)

SHH is instrumental in embryonic development. It has been implicated as the key inductive signal in patterning of the ventral neural tube, the anterior-posterior limb axis, and the ventral somites.

**Ordering information**

| Product | Size | Cat. No. |
|---|---|---|
| Activin A | 10 µg | PHC9564 |
| bFGF | 10 µg | 13256029 |
| BMP4 | 10 µg | PHC9534 |
| EGF | 1 mg | PHG0313 |
| LIF | 10 µg | PMC9484 |
| SHH | 10 µg | PMC8034 |
| TGF-β1 | 10 µg | PHG9214 |
| TGF-β2 | 10 µg | PHG9124 |
| TGF-β3 | 5 µg | PHG9305 |

For more information about Gibco growth factors, including growth factors for clinical research, go to **thermofisher.com/growthfactors**

ThermoFisher SCIENTIFIC