



**Heparin (0.2%)  
(HEP)**  
Catalog #0863

**Product Description**

Heparin is a 10-12 kDa polysaccharide produced in mast cells. Heparin inhibits blood coagulation through binding and activation of anti-thrombin [1] and acts as a cofactor to basic Fibroblast Growth Factor-2 (bFGF) [2, 3, 4].

The effect of heparin on cell growth and morphology *in vitro* is cell-type dependent and may promote or inhibit cell proliferation. Culture media may be supplemented with heparin solution (HEP) at 1:1000-1:100 (0.4 – 4.0 U/mL). The optimal concentration should be determined for individual cell types and culture conditions.

**Concentration**

2 mg/mL heparin sodium salt (from porcine intestinal mucosa) in Dulbecco's Phosphate-Buffered Saline, sterile-filtered. Potency: 200 Units per milligram\*.

\*Units are USP (United States Pharmacopeia units) and indicate heparin potency by weight. Units are not evaluated by ScienCell but are provided by supplier.

**Product Use**

HEP is for research use only. It is not approved for human or animal use, or for application in clinical or *in vitro* diagnostic procedures.

**Storage**

Store at 4°C.

**Shipping**

Room temperature.

**References**

- [1] Bjork I and Lindahl U. (1982) "Mechanism of the anticoagulant action of heparin". *Mol Cell Biochem*, 48(3):161-82.
- [2] Rapraeger A, Krufka A and Olwin B. (1991) "Requirement of heparin sulfate for bFGF-mediated fibroblast growth and myoblast differentiation". *Science*. 252(5013):1705-8.
- [3] Roghani M, Mansukhani A, et al. (1994) "Heparin increases the affinity of basic fibroblast growth factor for its receptor but is not required for binding". *J Biol Chem*. 269(6):3976-84.
- [4] Sasisekharan R, Ernst S and Venkataraman G. (1997) "On the regulation of fibroblast growth factor activity by heparin-like glycosaminoglycans". *Angiogenesis*, 1(1):45-54.

*Caution: If handled improperly, some components of this product may present a health hazard. Take appropriate precautions when handling this product, including the wearing of protective clothing and eyewear. Dispose of properly.*