

FGF1

Native Bovine ECGF (cell culture grade extract) + Heparin

Catalog No.	CSI12111	Quantity:	6 mg
Alternate Names:	Fibroblast growth factor 1, Endothelial Cell Growth Factor, Heparin-binding growth factor 1, HBGF-1, Acidic fibroblast growth factor, aFGF		
Description:	<p>Endothelial cell growth factor (ECGF) is an extract of bovine brain containing growth promoting factors for vascular endothelial cells of mammalian origin. ECGF has also been reported to be beneficial as a media supplement for the fusion and growth of hybridoma cells in monoclonal antibody production. Endothelial cell growth factor is prepared using a modification of the method of Maciag, et al. (1979) lyophilized from a sterile solution containing NaCl and streptomycin sulfate. Endothelial cells from human umbilical vein (HUVEC) can be established as primary cultures by traditional methods. The serial propagation of these cells has proved to be difficult. The long-term propagation of these cells in vitro can be achieved with an extract prepared from porcine brain. The introduction of a fibronectin or collagen matrix to the cell culture system allows to cultivate endothelial cells at clonal densities. With ECGF, the FCS requirement can be reduced. Heparin potentiates the mitogenic activity of crude preparations of ECGF. ECGF has also been reported to eliminate the need for feeder cells in the clonal growth of hybridomas and other cell types.</p>		
UniProt ID:	P03968		
Source:	Bovine (BSE-free)		
Species Specificity:	Bovine ECGF is effective on mouse, bovine and human cells. Validated for cell culture. Can be used for endothelial cell cultivation.		
Formulation:	Lyophilized without preservatives. Heparin content: 2.5 mg/mg ECGF		
Purity:	Crude extract		
Biological Activity:	The working concentration of ECGF for HUVEC is in the range of 25µg/ml to 100µg/ml. When adding Heparin (2.5mg per mg ECGF) an ECGF concentration of 12µg/ml (30µg/ml Heparin) is optimal. In this case, 6 mg ECGF/Heparin are sufficient for 500 ml medium.		
Reconstitution:	Centrifuge vial prior to opening. Endothelial cell growth factor is supplied as a sterile lyophilized powder containing 6 mg protein per vial. To obtain a stock solution reconstitute the contents of the vial in 2 ml of prewarmed (37 °C) sterile balanced salt solution. Gently rotate the vial until the contents are dissolved. This stock solution may be further diluted in sterile tissue culture media to obtain the desired working concentrations. Although the stock solution can be added aseptically to sterile tissue culture medium, it is recommended that medium containing diluted product is aseptically filtered prior to use.		

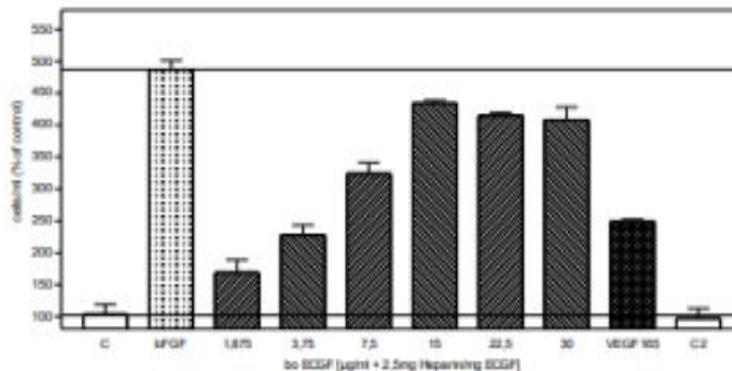


NOTE: Because ECGF is a crude extract the solution may appear slightly cloudy after reconstitution. This does not affect activity.

Storage & Stability:

Prior to reconstitution store vial at 2-8 °C. After reconstitution, the product may be stored as aliquots at -20°C to -80°C. It is recommended to store the reconstituted solution in aliquots at -20°C to -80°C. **Avoid repeated freeze-thaw cycles.**

Proliferation assay with primary HUVECs. Serum-starved HUVECs (2% FCS) were stimulated with increasing amounts of bovine ECGF/Heparin. Human VEGF165 and FGF-2 (Basic FGF) were used as positive controls.



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