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ECGF
Native Bovine Endothelial Cell Growth Factor
Crude Extract, cell culture grade

Catalog No.	CRE105	**Quantity:**	6 mg
Alternate Names:	ECGF		

Description: 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.

Source: Bovine (BSE-free tested)

Formulation: Lyophilized powder from water without preservatives.

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.

Applications: Bovine ECGF is effective on Mouse, Bovine and Human cells. Optimum concentration for HUVEC ranges from 50-200 µg/mL, optimal concentration with heparin (50 µg/mL) is about 10 µg/mL. As a growth supplement for use in monoclonal antibody production, the optimum range is 25 to 100 µg/mL. The optimal concentration should be determined by the user for each specific application.

Reconstitution: Reconstitute the contents of the vial in 2 ml of prewarmed (37 °C) sterile PBS or water. 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. It is recommended that medium containing diluted product is aseptically filtered prior to use.

Storage & Stability: Store as supplied 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.**

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