

## ECGF

### Native Bovine Endothelial Cell Growth Factor, cell culture grade

**Catalog No.** CRE105 **Quantity:** 6 mg

**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. ECGF 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 bovine brain. The introduction of a fibronectin or collagen matrix to the cell culture system allows cultivating of endothelial cells at clonal densities. With ECGF, the FCS requirement can be reduced. Heparin potentiates the mitogenic activity of crude preparations of ECGF. It 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

**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:** **Centrifuge vial prior to opening.** Add 2 mL of pre warmed (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 be aseptically filtered prior to use. **The 6 mg ECGF are sufficient for 500 mL medium.**

**Storage & Stability:** Store at 2-4°C. After reconstitution, store in working aliquots at -20°C. **Avoid repeated freeze-thaw cycles.**

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