

## Bovine ECGF (crude extract, cell culture tested)

Bovine Endothelial Cell Growth Factor (Cell culture grade)

Synonyms: Endothelial cell growth factor (ECGF), Endothelial cell growth supplement (ECGS)

*PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING*

Size	Order #	Lot #	Expiry Date
6 mg	1319.919.699		
5 x 6 mg	1319.919.308		

Please enquire for bulk quantities and other vial sizes

### 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.

- **Biological Activity**                      See below
- **Source**                                        Natural, Bovine brain (**BSE-free tested**)
- **Purity**                                         Crude extract
- **Stabilizer**                                    None
- **Buffer**                                        H<sub>2</sub>O, w/o preservative\*
- **Physical state**                             Sterile filtered, lyophilized

### Biological Activity

**Working Concentration** Optimum concentration for human umbilical vein endothelial cells (HUVEC) range from 25-200 µg/ml, optimal concentration with Heparin (30 µg/ml) is about 12 µg/ml (2,5mg Heparin per mg ECGF) Bovine ECGF is effective on mouse, bovine and human cells.

### Reconstitution

Endothelial cell growth factor is supplied as a sterile freeze-dried 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 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. 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. **The 6 mg ECGF are sufficient for 500 ml medium.**

### Stability

Also stable at 4°C for several weeks it is recommended to store the product below 0°C. After reconstitution the product should be stored in aliquots at -20°C to -70°C. Shipment at room temperature. **Please avoid repeated freeze-thaw cycles.**

**Usage:** For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

\*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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