

Product datasheet for DA3554

Bovine ECGF (Cell culture grade) Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Bovine ECGF (Cell culture grade) protein, 6 mg
Buffer:	State: Lyophilized (sterile freeze-dried) Crude extract Buffer System: H ₂ O, without preservatives
Reconstitution Method:	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.
Preparation:	Lyophilized (sterile freeze-dried) Crude extract
Applications:	Biological activity/ Working concentration: 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 6mg ECGF are sufficient for 500 ml medium.
Protein Description:	<i>Bovine Endothelial Cell Growth Factor (ECGF) (Cell Culture Grade).</i> 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. Species specificity: Bovine ECGF is effective on Mouse, Bovine and Human cells.
Storage:	Prior to reconstitution store vial at 2-8°C. After reconstitution, the product may be stored in aliquots at -20°C to -70°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.



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Summary:

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 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.