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Product datasheet for DA3560

Bovine ECGFpro1 + Heparin (complete for blood ECs) Protein

Product data:

Product Type:	Native Proteins
Description:	Bovine ECGFpro1 + Heparin (complete for blood ECs) protein, 6 mg
Protein Source:	Brain
Buffer:	State: Lyophilized, Freeze dried powder (Freeze dried) Buffer System: H2O Preservative: None
Bioactivity:	Specific: Bovine ECGFpro1 is effective on mouse, bovine and human cells.
Reconstitution Method:	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 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 ECGF + VEGF-A are sufficient for 500 ml growth medium.**
Preparation:	Lyophilized, Freeze dried powder (Freeze dried)
Protein Description:	**Biological activity/ Working concentration:** Optimum concentration for human umbilical vein endothelial cells (HUVEC) range from 50-200 µg/ml, optimal concentration with heparin (30 µg/ml) is about 12 µg/ml.
Storage:	Prior to reconstitution store the antibody at 2-8°C for one month or (in aliquots) at -20°C for longer. Following reconstitution store at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.

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Summary:

Endothelial cell growth factor (ECGF) is an extract of bovine brain containing growth promoting factors for vascular endothelial cells of mammalian origin. Endothelial cell growth factor is prepared using a modification of the method of Maciag, et al. (1979).

ECGFpro1 is supplemented with recombinant human VEGF165 (corresponding to 10 ng/ml) a concentration sufficient for the cultivation of blood vascular endothelial cells like HUVEC and HMVEC.

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 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.