Recombinant Human Epidermal Growth Factor (rHu EGF)

Product Description:

Akron's Recombinant Human Epidermal Growth Factor (rHu EGF) product is manufactured following all relevant cGMP guidelines for ancillary materials. Our rHu EGF, expressed in Yeast, contains 3 intramolecular disulfide bonds and 53 amino acids, with a molecular mass of approximately 5.9 kDa. It is purified in a pharmaceutical facility without the use of histidine tags and nickel columns. Sterile filtration, filling, and lyophilization are performed in-house with Endotoxin and Sterility testing performed per USP/EP on the final product. The lyophilized product is packaged in vials and available in 100 µg aliquots as listed above.

Epidermal Growth Factor (EGF) is the prototype of the large family of EGF-like proteins which all share the same three intramolecular disulfide bonds. EGF is a potent growth factor that stimulates the proliferation of various epidermal and epithelial cells. Additionally, EGF has been shown to inhibit gastric secretion, and to be involved in wound healing. EGF signals through a receptor known as c-erbB, which is a class I tyrosine kinase receptor. This receptor also binds with TGF-α and VGF (vaccinia virus growth factor). EGF stimulates the proliferation and differentiation of mesenchymal cells, acts as a mitogen for fibroblasts, epithelial and endothelial cells, and promotes colony formation of epidermal cells. Akron's cGMP-compliant rHu EGF can be used to promote the activation and proliferation of fibroblasts and a number of other epithelial cells.

Product Features:

Manufacturing

- Yeast expression system
- Tag-free purification
- Negligible BSE/TSE risk from all components
- All raw materials are compliant, controlled, and traceable under Akron's Quality Management System (QMS)

Quality

- Relevant cGMP guidelines used in manufacture, testing, and release
- USP <1043>, Ancillary Materials for Cell, Gene, and Tissue-Engineered Products
- ISO 13485:2016, Medical Devices - Quality Management Systems - Requirements for Regulatory Purposes
- ISO/TS 20399-1-3:2018, Biotechnology - Ancillary Materials Present During the Production of Cellular Therapeutic Products

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Release Testing:

- Appearance (Visual)
- pH (Potentiometric)
- Purity (HPLC)
- Purity (Reducing SDS-PAGE)
- Purity (Non-Reducing SDS-PAGE)
- Specific Activity (MTT assay w/ Balb/c 3T3 cell line)
- Bacterial Endotoxin (LAL)
- Bioburden (USP <61> / EP 2.6.12)

Stability:

- 36-months shelf life
- Store at -20 °C
- Transport on cold packs

Reconstitution:

Reconstitute the lyophilized product in sterile water for injection (WFI) not less than 100 µg/mL.

For Use Statement:

For research use or further manufacturing use in *ex vivo* cell therapy applications. This product is not intended for direct *in vivo* use or for direct clinical use as a drug, therapeutic, biologic, or medical device.

Related Products:

Catalog Number	Product Name	Size
AK9784-0100	Recombinant Human Basic Fibroblast Growth Factor-155 (rHu bFGF-155)	100 µg
AK9711-1000	Recombinant Human Platelet Derived Growth Factor-AA (rHu PDGF-AA)	1 mg
AK8274-0100	Recombinant Human Platelet Derived Growth Factor-BB (rHu PDGF-BB)	100 µg
AK8274-1000	Recombinant Human Platelet Derived Growth Factor-BB (rHu PDGF-BB)	1 mg
AK9884-0100	Recombinant Human Transforming Growth Factor-beta 1 (rHu TGF-β 1)	100 µg

For more information on our available products or for technical assistance, see contact info below.
For contract orders under master supply agreement, please inquire.