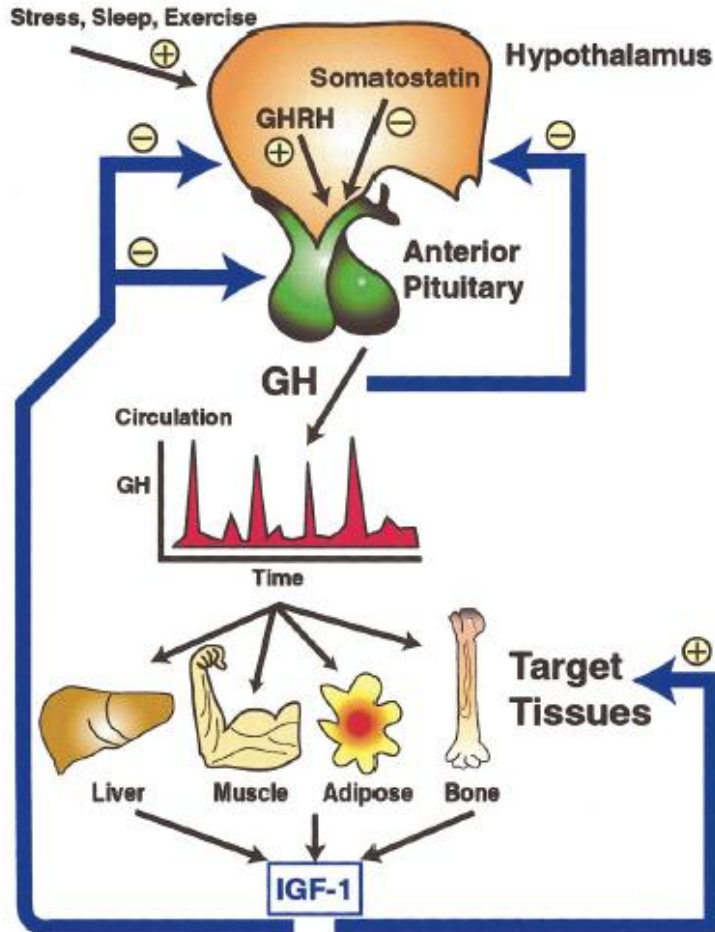


Carectropin (Recombinant Human Growth Hormone)



Mechanism of Action

- ▶ Secreted from a pituitary gland
- ▶ Binds to target tissues and activates their metabolism
 - Promote bone-growth
 - Facilitate IGF-1 synthesis
 - Increase protein synthesis
 - Decrease glucose level in blood
 - Facilitate degradation of fat, etc.

Caretropin - Product

Lyophilized powder (4 IU, 16 IU)



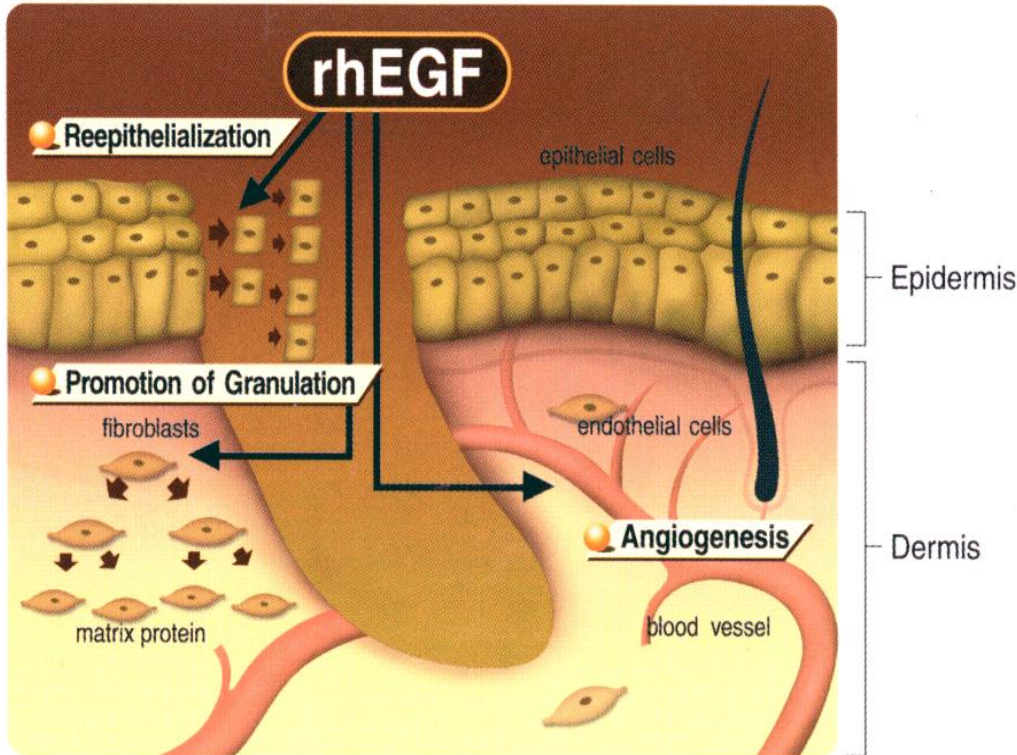
- ▶ Current status
 - 4 IU: Approved in 2011 by Korean FDA
 - 16 IU: Approved in 2007 by Korean FDA
- ▶ Stability
 - 16 IU: Stable for 24 months
(Stability test will be conducted at 30 and 36 months)
 - 4 IU: Stable for 12 months
(Stability test will be conducted at 24, 30 and 36 months)

Liquid cartridge with Pen (22 IU)



- ▶ Current status
 - Approved in Dec. 2010 by Korean FDA
- ▶ Stability
 - Stable for 18 months
(Stability test will be conducted at 24, 30 & 36 months)
- ▶ Pen-type syringe
 - Type: reusable, multidose, dose dialing
 - Injection method: push type
 - 1.5 mL cartridge: ISO 11608-3 compatible

Easyef (Recombinant Human Epidermal Growth Factor)



Mechanism of Action

► Re-epithelialization

promotes epithelial cells to proliferate and move to fill wounds

► Promotion of granulation tissue

stimulates fibroblasts in dermal tissue to facilitate dermal cells to differentiate and proliferate.

► Angiogenesis

promotes endothelial cells to proliferate to regenerate blood vessels.

► Stimulation of several growth factors' synthesis

Easyef - Product

- ▶ Classification : Ethical and orphan drug
- ▶ Ingredients : Recombinant Human EGF
- ▶ Indication : Diabetic foot ulcer, mucositis
- ▶ Use & Dose: After mixing active ingredient with attached solvent, apply to wound twice a day.
- ▶ Characteristics: Colorless, transparent liquid
- ▶ Packaging Unit: 10ml ($50\mu\text{g}/\text{ml}$)
- ▶ Storage: Cold storage ($2\sim 8\text{ }^{\circ}\text{C}$)



Easyef Ointment - Product

► Composition

- 1) Active ingredient: Recombinant Human **Epidermal Growth Factor** 1ug
- 2) preservative : Isopropyl p-Hydroxybenzoate (KP) 1.5mg

* **contains no steroid and antibiotic**

Leukocyte and macrophase suppress bacterial themselves during the course of wound healing, without steroid and antibiotics which have adverse effect and resistance

- **Dosage/usage:** several times per day apply for wound
- **Indication:** wound, topical adjuvant therapy of skin ulcer
- **Storage:** Cold storage (2~8 °C)

