

KGF-1

Keratinocyte Growth Factor 1
human, recombinant, *E. coli*

Cat. No.	Amount
PR-478	10 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Lyophilized.

Solubility

It is recommended to reconstitute the lyophilized KGF in bidest H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Activity

ED₅₀: < 10 ng/ml, corresponding to a specific activity 10⁵ IU/mg, stimulation of KGF-responsive BaF3 indicator cells (measured by 3H-thymidine uptake).

Endotoxin

Less than 0.1 ng/µg (IEU/µg) of KGF.

Purity

≥ 98% by SDS-PAGE, RP-HPLC and FPLC.

Description

Keratinocyte growth factor (KGF) is a paracrine-acting, epithelial mitogen produced by cells of mesenchymal origin. Keratinocyte growth factor-1 (KGF-1) is the seventh member of the fibroblast growth factor family. It is produced by mesenchymal cells such as fibroblasts and upregulated in a variety of hyperplastic tissues.

It is thought to play an important role in the paracrine growth control of normal epithelial cells. KGF stimulates the proliferation of primary and secondary human keratinocytes to the same extent as EGF.

Recombinant human KGF-1 (FGF-7) produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 164 amino acids and having a molecular mass of 18.995 kDa. Recombinant KGF-1 is purified by proprietary chromatographic techniques.

Selected References:

- Marchand-Adam *et al.* (2005) KGF expression by fibroblasts in pulmonary fibrosis: poor response to interleukin-1 beta. *Am. J. Respir. Cell. Mol. Biol.* Jan 27 [Epub ahead of print].
- Zang *et al.* (2004) KGF-induced motility of breast cancer cells is dependent on Grb2 and Erk1,2. *Clin. Exp. Metastasis.* **21**:437.
- Sharma *et al.* (2004) Epidermal and hepatocyte growth factors, but not keratinocyte growth factor, modulate protein kinase Calpha translocation to the plasma membrane through 15(S)-hydroxyeicosatetraenoic acid synthesis. *J. Biol. Chem.* **280**:7917.
- Washizawa *et al.* (2004) Comparative effects of glucagon-like peptide-2 (GLP-2), growth hormone (GH), and keratinocyte growth factor (KGF) on markers of gut adaptation after massive small bowel resection in rats. *JPEN J. Parenter. Enteral. Nutr.* **28**:399.
- Orskov *et al.* (2005) GLP-2 stimulates colonic growth via KGF, released by subepithelial myofibroblasts with GLP-2 receptors. *Regul. Pept.* **124**:105.