Saint Louis, Missouri 63103 USA
Telephone (800) 325-5832 (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Keratinocyte Growth Factor
Human, Recombinant
Expressed in *E. coli*

Product Number **K 1757**

Product Description

Keratinocyte Growth Factor (KGF), also known as FGF-7, is a member of the fibroblast growth factor family.[1] KGF is an epithelial cell-specific mitogen responsible for the normal proliferation and differentiation of human epithelial cells.[2] Recombinant human KGF is an 18.9 kDa protein containing 163 amino acid residues. KGF is secreted in culture by stromal fibroblasts derived from major epithelial organs including the skin and gastrointestinal tract; and is expressed *in vivo* by dermal, but not epidermal cells.[2] KGF transcripts are found in dermal fibroblasts, epidermal melanocytes, and malignant melanoma cells.[3] KGF is particularly active as a mitogen for BALB/MK cells, a continuous mouse keratinocyte line,[4] and as a potent mitogen, equivalent to EGF, for human keratinocytes in culture.[2]

Reagent

Lyophilized from a 0.2 µm-filtered solution of phosphate buffered saline (PBS) containing 500 µg bovine serum albumin (BSA) as a carrier protein.

Reconstitution

Reconstitute the contents of the vial using 0.2 µm-filtered PBS to a concentration of 0.5-1 mg/ml. This solution can then be diluted into other aqueous buffers and stored at 2-8 °C for one week or at –20 °C for extended storage.

Storage/Stability

Store at –20 °C. After reconstitution, store at 2-8 °C for up to one week. For extended storage, freeze in working aliquots at –20 °C. Repeated freezing and thawing is not recommended. Do not store in a frost-free freezer.

Product Profile

The biological activity of recombinant human KGF is measured by the dose-dependent stimulation of thymidine uptake using KGF-responsive BaF3 cells. The ED_{50} is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Purity: ≥ 95% as determined by SDS-PAGE and HPLC.

Endotoxin level is < 0.1 ng/µg (1 EU/µg).

References

1. Finch, P., et al., Science, **245**, 752 (1989).
2. Marchese, C., et al., J. of Cell. Phys., **144**, 326 (1990).
3. Albino, A., et al., Cancer Research, **51**, 4815 (1991).
4. Weissman, B., et al., Cell, **32**, 599 (1983).

KAA 06/05