Technical Data Sheet

Recombinant Human Keratinocye Growth Factor-2 (rHu KGF-2)

Human Keratinocye Growth Factor-2

KGF-2(also known as FGF-10) was originally identified from rat embryos by homology-based polymerase chain reaction. Human and mouse KGF-2 were subsequently cloned. The human KGF-2 cDNA encodes a 208 amino acid residue protein with a hydrophobic amino-terminal signal peptide. Human KGF-2 shares approximately 92% and 95% amino acid sequence identity with mouse and rat KGF-2, respectively. Among the FGF family members, KGF-2 is most closely related to FGF-7. The expression of KGF-2 transcripts has been shown to be most abundant in the embryo and adult lung. Recombinant KGF-2 preparations have been shown to be mitogenic for epithelial and epidermal cells but not fibroblasts. Based on its in vitro biological activities and in vivo expression pattern, KGF-2 has been proposed to play unique roles in the brain, in lung development, wound healing and limb bud formation.

Catalog Number:	RC215-21
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 19.3 kDa, 170 amino acid residues consisting of Methionine and the mature human KGF-2 (amino acid residues 40 – 208).
Quantity:	5ug/25ug/1mg
Purity:	>96% by SDS-PAGE and HPLC analyses.
Biological Activity:	The biological activity was determined by the does-dependent stimulation of thymidine uptake by BaF3 cells expressing FGF receptors yielding an ED_{50} <0.5ng/ml., corresponding to a specific activity of 2.0 x 10^6 Units/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2μm filtered concentrated (1mg/ml) solution in PBS, pH 7.4.
AA Sequence:	MLGQDMVSPE ATNSSSSSFS SPSSAGRHVR SYNHLQGDVR WRKLFSFTKY FLKIEKNGKV SGTKKENCPY SILEITSVEI GVVAVKAINS NYYLAMNKKG KLYGSKEFNN DCKLKERIEE NGYNTYASFN WQHNGRQMYV ALNGKGAPRR GQKTRRKNTS AHFLPMVVHS
Endotoxin:	Less than 1EU/μg of rHuKGF-2 as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. **Avoid repeated freeze/thaw cycles**.

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