

Recombinant Human Keratinocyte Growth Factor-2 (rhKGF-2) Catalog Number: 104-10

Description	Keratinocyte Growth Factor-2 (KGF-2) 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. KGF-2 transcripts has been shown to be most abundant in the embryo and adult lungs. Recombinant KGF-2 preparations have been shown to be mitogenic for epithelial and epidermal cells but not fibroblasts. Based on its <i>in vitro</i> biological activities and <i>in vivo</i> expression pattern, KGF-2 has been proposed to play unique roles in the brain, in lung development, wound healing and limb bud formation
Synonyms	FGF-10, FGF10
AA Sequence	MLGQDMVSPE ATNSSSSSFS SPSSAGRHVR SYNHLQGDVR WRKLFSFTKY FLKIEKNGKV SGTKKENCPY SILEITSVEI GVVAVKAINS NYYLAMNKKG KLYGSKEFNN DCKLKERIEE NGYNTYASFN WQHNGRQMYV ALNGKGAPRR GQKTRRKNTS AHFLPMVVHS
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 $40 - 208$).
Purity	>96% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active. The ED ₅₀ is ≤ 0.5 ng/ml, corresponding to a specific activity of $\geq 2 \text{ x}$ 10 ⁶ units/mg, as determined by proliferation of BaF3 cells expressing FGF receptors.
Physical Appearance	White lyophilized powder.
Formulation	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	$< 1EU/\mu g$ of growth factor as determined by LAL method.
Reconstitution	Reconstitute in sterile distilled water containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.
Storage	Store at -20°C after receiving. Upon reconstitution, store at 2-8°C for up to one week. For maximal stability, aliquot and store at -20°C. Avoid repeated freeze/ thaw cycles.
Usage	This product is for research use only. It is not approved for use in humans, animals, or <i>in vitro</i> diagnostic procedures.