

Recombinant Human Keratinocyte Growth Factor-2 (rh KGF-2 / FGF-10)

Synonyms: Fibroblast growth factor 10.

Introduction: KGF-2 is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities and are involved in a variety of biological processes including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. KGF-2 exhibits mitogenic activity for keratinizing epidermal cells, but essentially no activity for fibroblasts which is similar to the biological activity of KGF-1. Studies of the mouse homolog of suggested that this gene is required for embryonic epidermal morphogenesis including brain development, lung morphogenesis, and initiation of limb bud formation. This gene is also implicated to be a primary factor in the process of wound healing.

Description: Recombinant Human KGF-2 produced in *E.Coli* is a single, non-glycosylated, polypeptide chain containing 170 amino acids and having a molecular mass of 19300 Dalton. rh KGF-2 is highly related to KGF-1 (FGF-7), it binds to the same receptor as KGF-1 and shares 57 % sequence homology. rh KGF-2 is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized in water containing 5 mM Sodium Phosphate buffer, pH 7.4 + 80 mM NaCl. The aliquots of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rh KGF-2 in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh KGF-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 95.0% as determined by RP-HPLC and by SDS-PAGE.

Amino acid Sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Met-Leu-Glu-Gln-Asp.

Biological Activity: The ED₅₀, calculated by the dose-dependant stimulation of FGF receptors by BaF3 indicator cells (measured by ³H-thymidine uptake) is < 0.5 ng/ml corresponding to a specific activity of 2 x 10⁶ Units/mg.

Endotoxicity: Less than 0.1 ng/µg (IEU/µg) of rh KGF-2.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	11343602
<i>medium</i>	10 µg	Cat.N°	11343603
<i>large</i>	50 µg	Cat.N°	11343605
<i>x-large</i>	250 µg	Cat.N°	11343607

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