Cytokines

Human Recombinant FGF-10
(KGF-2)

Catalog #

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<tbody>
<tr>
<td>78037</td>
<td>10 μg</td>
<td></td>
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<tr>
<td>78037.1</td>
<td>50 μg</td>
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<tr>
<td>78037.2</td>
<td>500 μg</td>
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<tr>
<td>78037.3</td>
<td>1000 μg</td>
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Product Description

Fibroblast growth factor 10 (FGF-10) is a member of the fibroblast growth factor (FGF) family predominantly expressed by mesenchymal fibroblasts during embryonic development (Emoto et al.; Igarashi et al.). It binds with high affinity to fibroblast growth factor receptor 2-IIIb (FGFR2-IIIb), and also has a weaker affinity for FGFR1-IIIb (Beer et al.). FGF-10 and FGF-7 have similar receptor binding properties and target cell specificities but are differentially regulated by components of the extracellular matrix (Emoto et al.; Igarashi et al.). FGF-10 has been shown to mediate epithelial-mesenchymal interactions, which are essential to lung development (Sekine et al; Ware & Matthay). FGF-10 also has a role in mobilization and proliferation of lung-resident mesenchymal stem cells (MSCs) and protection and repair against acute lung injury (Tong et al.; Ware & Matthay) and endodermal differentiation of human pluripotent stem cells to insulin-producing pancreatic-like cells (Takeuchi et al.).

Product Information

Alternative Names: FGFA, Fibroblast growth factor-10, Keratinocyte growth factor-2
Accession Number: O15520
Amino Acid Sequence:
LGQDMVPEA TNSSSSSFSS PSSAGRHRVS YNHLOQGDVRW RKLFSFTKYF LKIEKNGKVS GTKKENCPSYS ILEITSVEIG WAVKAINSN YYLAMNKKGK LYGSKETFNd CCLKEREEN GYNTYASRNW QHQRQMYVA LNGKGAPRRC QKTRRKNTSA HFLPMVHHS
Predicted Molecular Mass: 19.3 kDa
Species: Human
Cross Reactivity: Mouse, Rat
Formulation: Lyophilized after dialysis against phosphate-buffered saline.
Source: E. coli

Specifications

Activity: The specific activity is ≥ 5 x 10^4 units/mg (EC50 ≤ 20 ng/mL) as determined by a cell proliferation assay using 4MBr-5 cells.
Purity: ≥ 95 %
Endotoxin Level: Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 0.2 EU/μg protein.

Preparation and Storage

Storage: Store at -80°C.
Stability: Stable as supplied for 12 months from date of receipt.
Preparation: Centrifuge vial before opening. Resuspend the product in sterile water to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. Store at 2 - 8°C for up to 1 week or at -20°C to -80°C for up to 3 months. Avoid repeated freeze-thaw cycles.
(A) The biological activity of Human Recombinant FGF-10 (KGF-2) was tested by its ability to promote the proliferation of 4MBr-5 cells. Cell proliferation was measured using a fluorometric assay method. The EC50 is defined as the effective concentration of the growth factor at which cell proliferation is at 50% of maximum. The EC50 in the above example is less than 20 ng/mL.

(B) 2 μg of Human Recombinant FGF-10 (KGF-2) was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant FGF-10 (KGF-2) has a predicted molecular mass of 19.3 kDa.

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References


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