

Recombinant Human FGF-10 protein(His Tag)

Catalog Number: PKSH034152

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Species	Human
Source	E.coli-derived Human FGF-10 protein Leu 40-Ser 208, with an C-terminal His
Calculated MW	20.1 kDa
Observed MW	19 kDa
Accession	O15520
Bio-activity	Measure by its ability to induce 3T3 cells proliferation. The ED ₅₀ for this effect is <8 ng/mL. The specific activity of recombinant human FGF-10 is > 1.2 x 10 ⁵ IU/mg.

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Background

Fibroblast growth factor 10 (FGF-10, KGF-2), is a member of the fibroblast growth factor (FGF) family that includes FGF-3, -7, and -22. KGF-2 is secreted by mesenchymal cells and associates with extracellular FGF-BP. It preferentially binds and activates epithelial cell FGFR2 and interacts more weakly with FGFR1. It plays an important role in the regulation of embryonic development, cell proliferation and cell differentiation. It exhibits mitogenic activity for keratinizing epidermal cells, but essentially no activity for fibroblasts, which is similar to the biological activity of FGF7. FGF10 is required for normal branching morphogenesis. Defects in FGF10 are the cause of autosomal dominant aplasia of lacrimal and salivary glands (ALSG). ALSG has variable expressivity, and affected individuals may have aplasia or hypoplasia of the lacrimal, parotid, submandibular and sublingual glands and absence of the lacrimal puncta. The disorder is characterized by irritable eyes, recurrent eye infections, epiphora (constant tearing) and xerostomia (dryness of the mouth), which increases the risk of dental erosion, dental caries, periodontal disease and oral infections.