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ProductInformation

Fibroblast Growth Factor-4
Human, Recombinant
Expressed in *E. coli*

Product Number **F8424**

Product Description

Fibroblast Growth Factor-4 (FGF-4), of the fibroblast growth factor family, is encoded by the K-fgf/hst oncogene. FGF-4 is also known as hst-1 (from human stomach tumor), and K-FGF (from Kaposi's sarcoma). The K-fgf/hst oncogene was originally identified by transfection into NIH3T3 cells with DNA from stomach and colon cancer,[1, 2, 3] Kaposi's sarcoma,[4, 5] and hepatocellular carcinoma.[6] The activation of the K-fgf oncogene results from unregulated expression of a normal gene product.[7] Unlike the two prototypes of the FGF family, FGF basic (FGF-2) and FGF acidic (FGF-1), FGF-4 is glycosylated and secreted by cells into culture medium.[5]

Fibroblast cell lines expressing FGF-4 acquire a transformed phenotype *in vitro* and are highly tumorigenic *in vivo*.[8] FGF-4 is a potent mitogen for fibroblasts in culture and has features of a transforming growth factor.[8] In addition, FGF-4 is mitogenic for endothelial cells and will cause morphological transformation of NIH3T3 cells.[4, 5, 7] FGF-4 shares 42% sequence identity with FGF-basic (FGF-2),[9] and both FGF-basic and FGF-4 bind to the same receptors.[10, 11] Recombinant FGF-4 is a 19 kDa protein containing 182 amino acid residues.

Reagent

Lyophilized from a 0.2 µm-filtered buffered solution containing bovine serum albumin as a carrier protein.

Storage/Stability

The lyophilized product is stable for a few weeks at room temperature, but is best stored at –20 °C. After reconstitution, store in working aliquots at –20 °C. Repeated freeze/thaw cycles will result in some loss of activity.

Reconstitution and Use

Reconstitute in water to a concentration of 0.1-1.0 mg/ml. This solution can then be diluted into other aqueous buffers and stored at 2-8 °C for up to one week. For extended use, the reconstituted product should be stored in working aliquots at –20 °C. Repeated freezing and thawing is not recommended.

Product Profile

The biological activity of recombinant human FGF-4 is measured by the dose-dependent stimulation of thymidine uptake using BaF3 cells expressing FGF receptors.

The ED_{50} is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Purity: ≥ 95% by SDS-PAGE and HPLC

Endotoxin: <0.1 ng/µg

References

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KAA 12/03