

FGFb 146, human, recombinant

Catalog Number: IK0200

Available sizes: 10 µg, 50 µg, 100 µg

DESCRIPTION

FGF-basic (FGFb or FGF2) is a member of the fibroblast growth factor (FGF) family. FGF family members are heparin-binding multifunctional proteins and are involved in a variety of biological processes including angiogenesis, wound healing, and embryonic development. FGF-basic is known to play a key role during prenatal development and postnatal growth and regeneration of tissues by promoting cellular proliferation and differentiation. FGF-basic has been recognized as a critical component of human embryonic stem cell culture medium due to its vital role for cells to remain in an undifferentiated state. FGF-basic signals through FGFR 1b, 1c, 2c, 3c and 4. This recombinant human FGF-basic consists of 146 amino acid residues. In addition, it contains a 10 aa tag at the N-terminus resulting in a 17.8 kDa protein.

SOURCE

Produced in the endosperm tissue of barley grain (*Hordeum vulgare*). ISO[®]okine growth factors and cytokines are animal-free and serum-free and void of antibiotics, bacterial endotoxins, viruses, and prions.

FORMULATION

2xPBS pH 7.2, sterile filtered through 0.2 µm filter.

PURITY

Greater than 95% by SDS-PAGE gel analysis.

RECONSTITUTION

Note: Always centrifuge the vial before opening. It is recommended to reconstitute the lyophilized protein in sterile buffered saline to a concentration of no less than 100 µg/ml. For long term storage of the reconstituted solution it is recommended to add a carrier protein (0.1% HSA or BSA).

STABILITY

The lyophilized protein, though stable at room temperature for few weeks, is best stored at -20°C. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.

BIOLOGICAL ACTIVITY

Each batch of ISO[®]okine growth factor is tested for bioactivity and verified to have comparable activity to a commercial source. Bioactivity of ISO[®]okine recombinant human FGF-basic 146 is assayed by measuring its dose dependent effect on proliferation of 3T3 cells. The ED50 for this effect using FGFb146 is typically < 0.4 ng/ml, corresponding to a specific activity > 2.5 x10e6 U/mg. Optimal concentration should be determined for specific applications and cell lines.

ENDOTOXIN LEVEL

Endotoxin level is less than 0.005ng per µg of ISO[®]okine product (0.05EU/µg).

MAT ASSAY

Purified ISO[®]okine product carries no pyrogenic or pro-inflammatory contaminants, as assayed with monocyte activation test using Human 10-plex Cytokine Assay measuring IL-6, TNF-alpha and IL-1beta induction.**

** Ref. The Blood Bank, University Hospital of Iceland, Reykjavik, Iceland.

MOLECULAR WEIGHT

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