



User Manual

Fibroblast Growth Factor-acidic (aFGF) (Human)

Cat. No. HEGFP-06012

Description:

Fibroblast Growth Factor-acidic (FGF acidic), also known as FGF-1 and endothelial cell growth factor, is a member of the FGF family of mitogenic peptides which currently is comprised of at least seven proteins which show 35-55% amino acid sequence conservation. FGF acidic and basic, unlike the other members of the family, lack signal peptides and are apparently secreted by mechanisms other than the classical protein secretion pathway. FGF acidic has been detected in large amounts in the brain. Other cells known to express FGF acidic include hepatocytes, vascular smooth muscle cells, CNS neurons, skeletal muscle cells, fibroblasts, keratinocytes, endothelial cells, intestinal columnar epithelium cells and pituitary basophils and acidophils. As with other FGF's, FGF acidic exhibits considerable species crossreactivity. FGF acidic and FGF basic stimulate the proliferation of all cells of mesodermal origin, and many cells of neuroectodermal, ectodermal and endodermal origin.

Source:

Escherichia coli

Unit:

50 µg

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at < -20°C. Further dilutions should be made in appropriate buffered solutions.

Formulation:

Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Storage:

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Molecular Weight:

Approximately 15.8 kDa, a single non-glycosylated polypeptide chain containing 141 amino acids.

Endotoxin:

Less than 1 EU/μg of aFGF as determined by LAL method.

Usage:

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

Biological Activity:

The ED50 determined by a cell proliferation assay using murine balb/c 3T3 cells is less than 0.3 ng/mL, corresponding to a specific activity of $> 3.3 \times 10^6$ IU/mg in the presence of 10μg/mL of heparin.

Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

AA Sequence:

MFNLPPGNYK KPKLLYCSNG GHFLRILPDG TVDGTRDRSD QHIQLQLSAE
SVGEVYIKST ETGQYLAMDTDGLLYGSQTPNEECLFLERL EENHYNTYIS
KKHAEKNWFV GLKKNGSCKR GPRTHYGQKA ILFLPLPVSS D

Purity:

> 95% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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