Acidic Fibroblast Growth Factor (aFGF)

recombinant, Human
expressed in E.Coli

Catalog Number

GR 002-010 (10ug)

GR 002-050 (50ug)

GR 002-200 (200ug)

Storage Temperature -5 ~ -20°C

Precautions
For *In Vitro* Use Only

Product Information

Alternative Names :
Fibroblast growth factor 1, FGF1, AFGF, ECGF, ECGF-beta, ECGFA, ECGFB, FGF-1, FGF-alpha, FGFA, GLIO703, HBGF-1, HBGF1

Species : Human

Source : E. Coli

Predicted Molecular Mass : 15.8 kDa

Amino Acid Sequence :
FNLPPGNYKKPKLLYCSNGGHFLRILPDGTVDGT
RDRSDQHIQLQLSAESVGEVYIKSTE
TGQYLAMDTDGLLYGSQTPNEECLFLERLEENH
YNTYISKKHAEKNWFVGLKKNGSCKRG
PRTHYGQKAILFLPLPVSSD

Formulation :
Lyophilized from a sterile-filtered aqueous solution containing 20mM Sodium Phosphate, pH 6.0.

Product Description

Acidic Fibroblast Growth Factor (aFGF), Fibroblast Growth Factor 1 (FGF-1), is a non-glycosylated 17-18 kDa protein consisting of a 155 amino acid polypeptide and a member of the fibroblast growth factor family of proteins. The function of aFGF is to promote cell proliferation, differentiation, and migration which is mediated by binding to the FGF receptor (FGFR) on the surface of cells, leading to the activation of intracellular signaling pathways that regulate various cellular processes.

aFGF is involved in various physiological and pathological processes, such as wound healing, angiogenesis, and cancer. In wound healing, aFGF stimulates the growth and migration of fibroblasts, which are essential for tissue repair. In angiogenesis, aFGF promotes the growth and differentiation of blood vessels, which is important for tissue development and repair.

In cancer, aFGF has been found to be overexpressed in various types of tumors, where it promotes cell proliferation, angiogenesis, and metastasis. As a result, aFGF has been identified as a potential target for cancer therapy.

In addition, aFGF has been used in medical treatments for various conditions, such as chronic wounds, ulcers, and ischemic heart disease. It has also been used in some cosmetic products for its potential skin-regenerating effects.

Product Specifications

Biological activity :
The EC_{50} ≤ 1.0 ng/mL as determined by a cell proliferation assay using BALB/ 3T3 cells.

Purity :
≥ 95% purity by SDS-PAGE

Endotoxin :
≤ 0.5 EU/mg protein by LAL(Limulus amebocyte lysate) analysis method.

Preparation and Storage

Storage :
Store at -5 °C to -20 °C.

Stability :
Stable as supplied for 12 months from date of receipt.

Preparation :
Centrifuge vial before opening. Reconstitute 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

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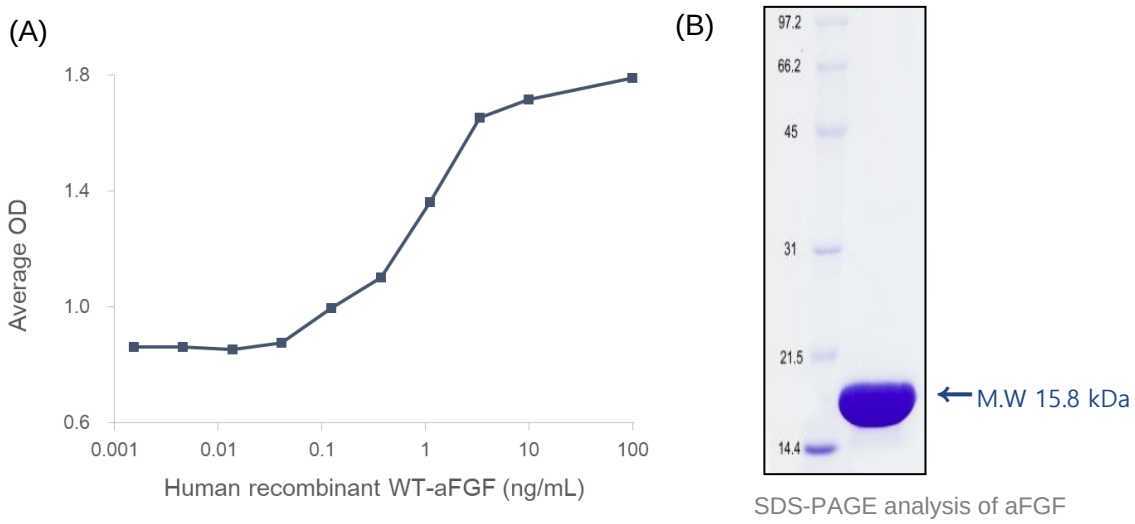
DATA

(A) The biological activity of Human Recombinant aFGF was tested by its ability to promote the proliferation of BALB/c 3T3 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 under example is 0.68 ng/mL.
(B) Human Recombinant aFGF was resolved with SDS-PAGE under and visualized by Coomassie Blue staining. Human Recombinant aFGF has a predicted molecular mass of 15.8 kDa.



SDS-PAGE analysis of aFGF

References

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