

Recombinant Rat Fibroblast Growth Factor-acidic (rr FGF-a/FGF-1)

Synonyms: Heparin-binding growth factor 1 (HBGF-1).

Introduction: Acidic fibroblast growth factor is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities, and are involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. This protein functions as a modifier of endothelial cell migration and proliferation, as well as an angiogenic factor. It acts as a mitogen for a variety of mesoderm- and neuroectoderm-derived cells in vitro, thus is thought to be involved in organogenesis. Three alternatively spliced variants encoding different isoforms have been described. The heparin-binding growth factors are angiogenic agents in vivo and are potent mitogens for a variety of cell types in vitro. There are differences in the tissue distribution and concentration of these 2 growth factors.

Description: Recombinant rat FGF-a produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 141 amino acids and having a molecular mass of 15.9 kDa. The FGF acidic is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized at a concentration of 1 mg/ml in 5mM Na₂PO₄, pH-7.5 and 50mM NaCl. The sample size of 1µg contains Trehalose 5% (w/vol) for better recovery.

Stability: Lyophilized rat FGF-a although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rat FGF-a should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Purity: Greater than 98.0% as determined by SDS-PAGE.

Amino Acid: MFNLPLGNYK KPKLLYCSNG GHFLRILPDG TVDGTRDRSD QHIQLQLSAE SAGEVYIKGT ETGQYLAMDT EGLLYGSQTP NEECLFLERL EENHYNTYTS KKHAEKNWFV GLKKNNGSCKR GPRTHYGQKA ILFLPLPVSS D.

Biological Activity : The ED₅₀ range as determined by the dose-dependant proliferation of BALB/3T3 cells was found to be less than 0.2 ng/ml, corresponding to a specific activity of 5 x 10⁶ IU/mg.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	10 µg	Cat.N°	13343553
<i>medium</i>	50 µg	Cat.N°	13343555

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