

32-20120: Recombinant Human FGF-BP-1(Discontinued)

Alternative Name : Fibroblast growth factor binding protein 1, FGF-BP, FGF-binding protein 1, HBp17

Description

Source: E.coli The Fibroblast Growth Factor (FGF) Superfamily is comprised of multifunctional proteins that serves to regulate several complex biological processes related to the development, restoration, and/or redistribution of prenatal and postnatal tissue, as well as angiogenesis, wound healing, nerve regeneration, chronic inflammation, and cancer growth. Members of the FGF Superfamily function through paracrine, autocrine and intracrine pathways to promote spatial and temporal integrations of several cell responses, such as proliferation, growth, differentiation, and migration. Fibroblast growth factor binding protein 1 (FGF-BP-1) is a secreted glycoprotein, which contains both a heparin-binding domain and a distinct FGF-binding region, that is shed into circulation where it acts as a chaperone molecule for FGFs, most notably FGF-acidic and FGF-basic. Once secreted, FGF-BP-1 can bind FGFs in a reversible manner to mobilize them from inactive storage on heparan sulfate proteoglycans in the extracellular matrix, and deliver them to high affinity receptors on the cell surface where they can exert biological function, all the while protecting against proteolytic degradation. Expressed within the squamous epithelium, FGF-BP-1 functions synergistically with FGFs as a mitogen for keratinocytes and an antagonist for angiogenesis under normal physiological conditions and instances of tissue repair, while also acting as an angiogenic switch for the malignant progression of epithelial cells. First discovered at elevated levels within A431 human epidermoid carcinoma cells, FGF-BP-1 is also expressed at elevated levels in many squamous cell carcinomas and tumors where it has been shown to be a rate-determining factor, interacting with the heparan sulfate proteoglycan perlecan to potentiate neovascularization of tumor masses. Recombinant Human FGF-BP-1 expressed in E.coli is a 24.0 kDa protein containing 212 amino acid residues.

Product Info

Amount : 5 µg / 25 µg

Purification : Purity: >= 95% by SDS-PAGE gel and HPLC analyses.

Content : This recombinant protein is supplied in lyophilized form.

Amino Acid : MKKKVKNGLH SKVVSEQKDT LGNTQIKQKS RPNKGKFVT KDQANCRWAA TEQEEGSLK
VECTQLDHEF SCVFAGNPTS CLKLKDERVY WKQVARNLRS QKDICRYSKT AVKTRVCRKD
FPESLKLVS STLFGNTKPR KEKTEMSPRE HIKGKETTPS SLAVTQTMAT KAPECVEDPD
MANQRKTALE FCGETWSSLC TFFLSIVQDT SC

Application Note

Determined by the dose-dependent stimulation of thymidine uptake by BaF3 cells expressing FGF receptors. The expected ED_{50} for this effect is 1.5-3.0 µg/ml.