



## Recombinant Human FGF-BP

Catalog number: 1593-FB/CF

CARRIER FREE

### Specifications and Use

- Source** ♦ A DNA sequence encoding human FGF-BP (Met 1 - Cys 234; Accession # Q14512) was fused with a 10x-His tag at the C-terminus and expressed in a mouse myeloma cell line, NS0.
- Molecular Mass** ♦ Based on N-terminal amino acid sequencing, two forms of recombinant human FGF-BP are present starting at Asn 29 and Lys 24 in a 2:1 ration, and have predicted molecular masses of 25.2 kDa and 24.6 kDa, respectively. The recombinant human FGF-BP migrates as an approximately 31 - 35 kDa protein in SDS-PAGE under reducing conditions.
- Purity** ♦ > 95% as determined by SDS-PAGE under reducing conditions and visualized by silver stain.
- Endotoxin Level** ♦ < 1.0 EU per 1 µg of the protein as determined by the LAL method.
- Activity** ♦ Measured by its ability to bind rhFGF basic (R&D Systems, Catalog # 233-FB) in a functional ELISA type binding assay.  
♦ In a 100 µL reaction mixture containing 1 µg/mL of rhFGF-BP and serial diluted rhFGF basic, the concentration of rhFGF basic that produces 50% of the optimal binding is found to be approximately 5 - 20 ng/mL.
- Formulation** ♦ Lyophilized from a 0.2 µm filtered solution in PBS.
- Reconstitution** ♦ It is recommended that sterile PBS be added to the vial to prepare a stock solution of 100 µg/mL.
- Storage** ♦ Lyophilized samples are stable for up to twelve months at -20° C to -70° C.  
♦ Upon reconstitution, this protein can be stored under sterile conditions at 2° - 8° C for one month or at -20° C to -70° C in a **manual defrost freezer** for three months without detectable loss of activity.  
♦ **Avoid repeated freeze-thaw cycles.**

### Human FGF-BP

Fibroblast growth factor binding protein (FGF-BP), also known as HBp17, is a secreted glycoprotein that increases the bioavailability of FGFs (1). Mature FGF-BP is a 34 kDa, 211 amino acid (aa) O-glycosylated protein with five conserved intrachain disulfide bonds (2 - 4). FGF-BP contains a heparin-binding domain (aa 110 - 143) and a distinct FGF-binding region (aa 193 - 243) (5). Mature human FGF-BP shares 59% and 54% aa sequence identity with mouse and rat FGF-BP, respectively. FGF-BP is expressed throughout development and in adult squamous epithelium (2, 6). It is upregulated in injured skin, renal tubular epithelium, and spinal nerves as well as in carcinomas of the skin, colon, and pancreas (3, 7 - 10). FGF-BP binds FGF-1, -2, -7, -10, and -22 which are secreted and sequestered in the extracellular matrix (ECM) (7, 11). The association of FGF-BP with heparan sulfate proteoglycans (HSPG) weakens HSPG attachment of FGFs and promotes their release (2, 8, 12, 13). FGF-BP enhances the mitogenic effects of FGFs, thereby contributing to epithelial, endothelial, and neuronal tissue repair, angiogenesis, and tumor growth (7 - 9, 11, 14, 15).

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