

Fructose 1,6-bisphosphatase 1, Active, Human Recombinant

CATALOG NO: P1269-10 10 µg
P1269-50 50 µg

ALTERNATE NAMES: FBP1, FBP, FB Pase 1, Liver FB Pase

SEQUENCE: Full-length Fructose 1,6-bisphosphatase 1 (388 amino acids)

SOURCE: *E. coli*

MOL. WEIGHT: 36.8 kDa (amino acids: 1-388)

FORM: Lyophilized

PURITY: ≥90 % SDS-PAGE

STORAGE CONDITIONS: Reconstitute in deionized water to a final concentration of 1.5 µg/ml. The reconstituted enzyme can be stored at 4°C for up to 2 weeks. For long term storage, aliquot and store at -70°C for two years. Avoid repeated freeze and thaw cycles.

DESCRIPTION: The conversion of fructose 1,6-bisphosphate to fructose 6 phosphate by fructose 1,6-bisphosphatase is the rate-limiting step during gluconeogenesis. The enzyme plays a role in regulating glucose sensing and insulin secretion of pancreatic beta-cells and modulates glycerol gluconeogenesis in liver. It is involved in regulation of adiposity and appetite.

SPECIFIC ACTIVITY: Specific activity is ≥ 1 U/mg.

UNIT DEFINATION: One unit is the amount of enzyme that will hydrolyze 1.0 µmole of fructose 1,6-bisphosphate to fructose 6-phosphate at pH 8.0 and 37°C for 30 minutes.

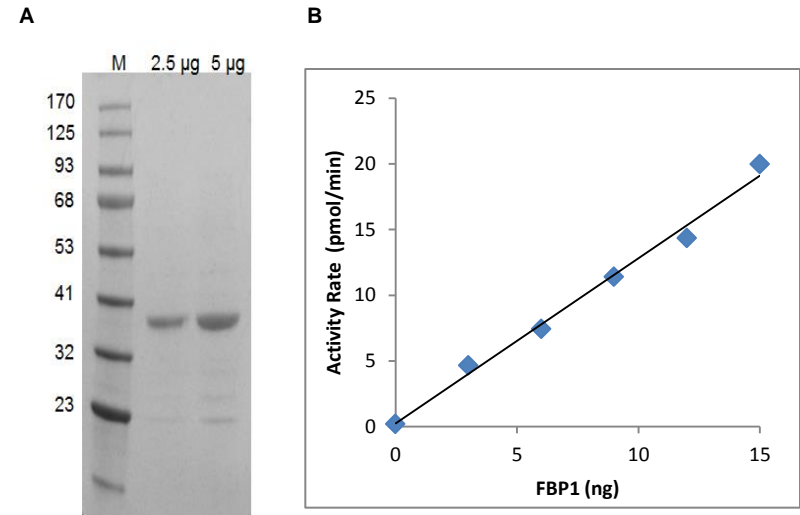


Fig A. SDS-PAGE (4-20%) recombinant Fructose 1,6-bisphosphatase recombinant protein loaded under reducing conditions and stained with Coomassie Blue. Lane M: molecular weight marker; Lanes 2-3: Fructose 1,6-bisphosphatase.

Fig B. Enzyme activity assay: Enzyme's activity was assayed in 50 mM Tris pH 8.0, 5 mM MgCl₂ at 37 °C for 30 minute with fluorometric reporter probe at Ex/Em 535/587 nm. The specific activity of the enzyme is 1 U/mg.

RELATED PRODUCTS:

- PicoProbe™ Glucose-6-Phosphate Fluorometric Assay Kit (**K687**)
- Fructose Colorimetric/Fluorometric Assay Kit (**K619**)
- Fructose Assay Kit (Colorimetric) (**K439**)
- PicoProbe™ Fructose Fluorometric Assay Kit (**K611**)
- PicoProbe™ Fructose-6-Phosphate Fluorometric Assay Kit (**K689**)
- Glucose-6-Phosphate Dehydrogenase Activity Colorimetric Assay Kit (**K757**)
- PicoProbe™ Glucose-6-Phosphate Dehydrogenase Activity Fluorometric Assay Kit (**K687**)

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