

# Recombinant human FBPase 1 protein

Catalog Number: ATGP3234

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-338aa

### UniProt No.

P09467

### NCBI Accession No.

NP\_000498.2

### Alternative Names

FBPase1, FBP, FBP1

## PRODUCT SPECIFICATION

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### Molecular Weight

39.0 kDa (358aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 0.1M NaCl

### Purity

> 90% by SDS-PAGE

### Biological Activity

Specific activity is > 7,000pmol/min/ug obtained by measuring the increase of NADPH in absorbance at 340 nm resulting from the reduction of NADP. One unit will oxidize 1.0pmole of fructose 1,6 diphosphate to fructose 6-phosphate and inorganic phosphate per minute at pH 9.5 at 37C.

### Tag

His-Tag

### Application

SDS-PAGE, Enzyme Activity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

Fructose-1, 6-bisphosphatase 1 (FBP1) is a gluconeogenesis regulatory enzyme, catalyzes the hydrolysis of fructose 1, 6-bisphosphate to fructose 6-phosphate and inorganic phosphate. Fructose-1, 6-diphosphatase

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deficiency is associated with hypoglycemia and metabolic acidosis. Recombinant FBP1 protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

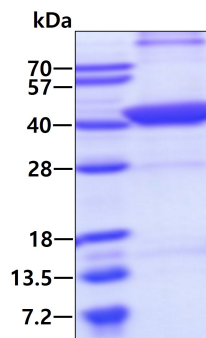
<MGSSHHHHHH SSGLVPRGSH> MADQAPFDTD VNTLTRFVME EGRKARGTGE LTQLLSLCT AVKAISSAVR  
KAGIAHLYGI AGSTNVTGDQ VKKLDVLSND LVMNMLKSSF ATCVLVSEED KHAIIVEPEK RGKYVVC FDP LDGSSNIDCL  
VSVGTFIGIY RKKSTDEPSE KDALQPGRNL VAAGYALYGS ATMLVLAMDC GVNCFM L DPA IGEFILVDKD VKIKKKGKIY  
SLNEGYARDF DPAVTEYIQR KKFPPDNSAP YGARYVGSMV ADVHRTLVIY GIFLYPANKK SPNGKLRLLY ECNPMAYVME  
KAGGMATTGK EAVLDVIPTD IHQRAPVILG SPDDVLEFLK VYEKHS AQ

## General References

Rabenhorst U., et al. (2009) *Hepatology*. 50(4):1121-9.  
Hirota K., et al. (2008) *Nature*. 456(7218):130-4.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.