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Product Information

4EBP1, GST-tagged, human
recombinant, expressed in *E. coli* cells

Catalog Number **SRP5161**
Storage Temperature –70 °C

Synonyms: BP-1, EIF4EBP1, PHAS-I, MGC4316

Product Description

4EBP1 is a member of a family of translation repressor proteins that directly interacts with eukaryotic translation initiation factor 4E (EIF4E). Interaction of 4EBP1 with EIF4E inhibits the multi-subunit complex that recruits 40S ribosomal subunits to the 5′ end of mRNAs, thereby, leading to repression of translation. Insulin treatment of adipose cells increases the phosphorylation of 4EBP1 and leads to reduced interaction of 4EBP1 with EIF4E.[1] 4EBP1 is expressed in most tissues, with highest levels seen in adipose tissue, pancreas, and skeletal muscle.[2]

Recombinant, full-length, human 4EBP1 was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_004095. Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~40 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

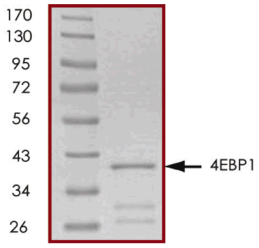
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at –70 °C is recommended. After opening, aliquot into smaller quantities and store at –70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. Pause, A. et al., Insulin-dependent stimulation of protein synthesis by phosphorylation of a regulator of 5-prime-cap function. Nature, **371**, 762-767 (1994).
2. Tsukiyama-Kohara, K. et al., Tissue distribution, genomic structure, and chromosome mapping of mouse and human eukaryotic initiation factor 4E-binding proteins 1 and 2. Genomics, **38**, 353-363 (1996).

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