



# Recombinant Protein Technical Manual

## Recombinant Human 4E-BP1/EIF4EBP1 Protein (His Tag)

RPES2707

### Product Data:

**Product SKU:** RPES2707

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** Q13541

### Protein Information:

**Molecular Mass:** 14.7 kDa

**AP Molecular Mass:** 17 kDa

**Tag:** N-6His

**Bio-activity:**

**Purity:** > 90 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Eukaryotic Translation Initiation Factor 4E-Binding Protein 1; 4E-BP1; eIF4E-Binding Protein 1; Phosphorylated Heat- and Acid-Stable Protein Regulated by Insulin 1; PHAS-I; EIF4EBP1;4E-BP1;4EBP1;BP

## Immunogen Information:

**Sequence:** Met 1-Ile118

## Background:

Eukaryotic Translation Initiation Factor 4E-Binding Protein 1 (4EBP1) is a member of the eIF4E-binding protein family. 4EBP1 regulates eIF4E activity by preventing its assembly into the eIF4F complex. 4EBP1 mediates the regulation of protein translation by hormones, growth factors and other stimuli that signal through the MAP kinase and mTORC1 pathways. Non-phosphorylated 4EBP1 competes with EIF4G1/EIF4G3 to interact with EIF4E. 4EBP1 is phosphorylated in response to various signals including insulin signaling, resulting in its dissociation from eIF4E and activation of mRNA translation. 4EBP1 has a role in progression of breast neoplasms through cell signaling.