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YB80481Ra01

Eukaryotic Translation Initiation Factor 4E Binding Protein 1 (EIF4EBP1)

Organism: *Rattus norvegicus* (Rat)

*Instruction manual*

FOR IN VITRO USE AND RESEARCH USE ONLY

NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES

1th Edition (Revised in February, 2012)

## [ DESCRIPTION ]

**Protein Names:** Eukaryotic Translation Initiation Factor 4E Binding Protein 1

**Gene Names:** EIF4EBP1

**Size:** 100 $\mu$ g

**Source:** Recombinant

**Expression Host:** *E. coli*

**Function:** Regulates eIF4E activity by preventing its assembly into the eIF4F complex. Mediates the regulation of protein translation by hormones, growth factors and other stimuli that signal through the MAP kinase and mTORC1 pathways.

**Tissue Specificity:** Expressed in all tissues examined; highest levels in fat and skeletal tissue, lowest levels in kidney.

## [ PROPERTIES ]

**Residues:** Ser2~Ile117 (Accession # Q62622), with a N-terminal His-tag.

**Grade & Purity:** >97%, 13.79 kDa as determined by SDS-PAGE reducing conditions.

**Form & Buffer:** Supplied as lyophilized form in PBS, pH 7.4.

**Endotoxin Level:** <1.0 EU per 1 $\mu$ g (determined by the LAL method).

**Applications:** SDS-PAGE; WB; ELISA; IP.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted Molecular Mass:** 13.79 kDa



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## [ PREPARATION ]

Reconstitute in PBS.

## [ STORAGE AND STABILITY ]

**Storage:** Store at 4°C for short term storage (1-2 weeks). Aliquot and store at -20°C or -80°C for long term storage. Avoid repeated freeze/thaw cycles.

**Valid period:** 12 months stored at -80°C.

## [ BACKGROUND ]

The target protein is fused with a His-tag and its sequence is listed below. The first Met is an initiator amino acid. Moreover, Gly and Ser are added to improve the flexibility of N-terminus at both ends of the His-tag, which will increase the chelating ability of the tag to Ni-Sepharose during purification.

MGHHHHHSGSEF-SAGSSCSQT PSRAIPTRRV ALGDGVQLPP GDYSTTPGGT LFSTTPGGTR ILYDRKFLME  
CRNSPVAKTP PKDLPTIPGV TSPTSDEPPM QASQSHLHSS PEDKRAGGEE SQFEMDI

## [ REFERENCES ]

1. Takabatake M, et al. (2011) *In Vivo*. 25(6):853-60.
2. Ohsumi M, et al. (2010) *J Nutr Sci Vitaminol (Tokyo)*. 56(5):319-25.
3. Ayuso MI, et al. (2010) *J Biol Chem*. 285(45):34355-63.
4. Xu JT, et al. (2010) *Brain Res*. 1336:46-57.
5. Ma XM, et al. (2009) *Nat Rev Mol Cell Biol*. 10(5):307-18.
6. Hu C., et al. (2006) *Nature*. 440:497-500.
7. Lin T.-A., et al. (1994) *Science*. 266:653-656.