

Phospho-EIF4EBP1(S100) Blocking Peptide
Synthetic peptide
Catalog # BP3353a

Specification

Phospho-EIF4EBP1(S100) Blocking Peptide - Product Information

Primary Accession [O13541](#)
Other Accession [NP_004086](#)

Phospho-EIF4EBP1(S100) Blocking Peptide - Additional Information

Gene ID 1978

Other Names

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

Target/Specificity

The synthetic peptide sequence is selected from aa 94-108 of HUMAN EIF4EBP1

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-EIF4EBP1(S100) Blocking Peptide - Protein Information

Name EIF4EBP1

Function

Repressor of translation initiation that regulates EIF4E activity by preventing its assembly into the eIF4F complex: hypophosphorylated form competes with EIF4G1/EIF4G3 and strongly binds to EIF4E, leading to repress translation. In contrast, hyperphosphorylated form dissociates from EIF4E, allowing interaction between EIF4G1/EIF4G3 and EIF4E, leading to initiation of translation. Mediates the regulation of protein translation by hormones, growth factors and other stimuli that signal through the MAP kinase and mTORC1 pathways.

Cellular Location

Cytoplasm. Nucleus. Note=Localization to the nucleus is unaffected by phosphorylation status.
{ECO:0000250|UniProtKB:Q60876}

Phospho-EIF4EBP1(S100) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

Phospho-EIF4EBP1(S100) Blocking Peptide - Images

Phospho-EIF4EBP1(S100) Blocking Peptide - Background

This gene encodes one member of a family of translation repressor proteins. The protein directly interacts with eukaryotic translation initiation factor 4E (eIF4E), which is a limiting component of the multisubunit complex that recruits 40S ribosomal subunits to the 5' end of mRNAs. Interaction of this protein with eIF4E inhibits complex assembly and represses translation. This protein is phosphorylated in response to various signals including UV irradiation and insulin signaling, resulting in its dissociation from eIF4E and activation of mRNA translation.

Phospho-EIF4EBP1(S100) Blocking Peptide - References

Fonseca,B.D., J. Biol. Chem. 282 (34), 24514-24524 (2007)
Armengol,G., Cancer Res. 67 (16), 7551-7555 (2007)