

EIF5 Blocking Peptide (Center)
Synthetic peptide
Catalog # BP22055c**Specification**

EIF5 Blocking Peptide (Center) - Product Information

Primary Accession [P55010](#)
Other Accession [P59325](#), [Q5R4L0](#), [Q07205](#)

EIF5 Blocking Peptide (Center) - Additional Information

Gene ID 1983

Other Names

Eukaryotic translation initiation factor 5, eIF-5, EIF5

Target/Specificity

The synthetic peptide sequence is selected from aa 287-298 of HUMAN EIF5

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.

EIF5 Blocking Peptide (Center) - Protein Information

Name EIF5

Function

Component of the 43S pre-initiation complex (43S PIC), which binds to the mRNA cap-proximal region, scans mRNA 5'-untranslated region, and locates the initiation codon (PubMed:11166181, PubMed:22813744, PubMed:24319994). In this complex, acts as a GTPase- activating protein, by promoting GTP hydrolysis by eIF2G (EIF2S3) (PubMed:11166181). During scanning, interacts with both EIF1 (via its C-terminal domain (CTD)) and EIF1A (via its NTD) (PubMed:22813744). This interaction with EIF1A contributes to the maintenance of EIF1 within the open 43S PIC (PubMed:24319994). When start codon is recognized, EIF5, via its NTD, induces eIF2G (EIF2S3) to hydrolyze the GTP (PubMed:11166181). Start codon recognition also induces a conformational change of the PIC to a closed state

(PubMed:22813744). This change increases the affinity of EIF5-CTD for EIF2-beta (EIF2S2), which allows the release, by an indirect mechanism, of EIF1 from the PIC (PubMed:22813744). Finally, EIF5 stabilizes the PIC in its closed conformation (PubMed:22813744).

Cellular Location

Cytoplasm.

EIF5 Blocking Peptide (Center) - Protocols

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

- [Blocking Peptides](#)

EIF5 Blocking Peptide (Center) - Images

EIF5 Blocking Peptide (Center) - Background

Catalyzes the hydrolysis of GTP bound to the 40S ribosomal initiation complex (40S.mRNA.Met-tRNA[F].eIF-2.GTP) with the subsequent joining of a 60S ribosomal subunit resulting in the release of eIF-2 and the guanine nucleotide. The subsequent joining of a 60S ribosomal subunit results in the formation of a functional 80S initiation complex (80S.mRNA.Met-tRNA[F]).

EIF5 Blocking Peptide (Center) - References

Si K.,et al.J. Biol. Chem. 271:16934-16938(1996).
Wiemann S.,et al.Genome Res. 11:422-435(2001).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.