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BCDIN3D Blocking Peptide (C-Term)

Synthetic peptide
Catalog # BP22145b

Specification

BCDIN3D Blocking Peptide (C-Term) - Product Information

Primary Accession	Q7Z5W3
Other Accession	Q5RFI3

BCDIN3D Blocking Peptide (C-Term) - Additional Information

Gene ID 144233

Other Names
Pre-miRNA 5'-monophosphate methyltransferase, 2.1.1.-, BCDIN3 domain-containing protein, BCDIN3D

Target/Specificity
The synthetic peptide sequence is selected from aa 263-276 of HUMAN BCDIN3D

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.

BCDIN3D Blocking Peptide (C-Term) - Protein Information

Name BCDIN3D (HGNC:27050)

Function
O-methyltransferase that specifically monomethylates 5'- monophosphate of cytoplasmic histidyl tRNA (tRNA(His)), acting as a capping enzyme by protecting tRNA(His) from cleavage by DICER1 (PubMed:28119416, PubMed:31329584, PubMed:31919512). Also able, with less efficiently, to methylate the 5' monophosphate of a subset of pre- miRNAs, acting as a negative regulator of miRNA processing (PubMed:23063121, PubMed:28119416). The 5' monophosphate of pre-miRNAs is recognized by DICER1 and is required for pre-miRNAs processing: methylation at this position reduces the processing of pre-miRNAs by DICER1 (PubMed:23063121). Was also reported to mediate dimethylation of pre-miR-145; however dimethylation cannot be

reproduced by another group which observes a monomethylation of pre-miR-145 (PubMed:23063121, PubMed:28119416).

Cellular Location
Cytoplasm.

BCDIN3D Blocking Peptide (C-Term) - Protocols

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

- Blocking Peptides

BCDIN3D Blocking Peptide (C-Term) - Images

BCDIN3D Blocking Peptide (C-Term) - Background

O-methyltransferase that specifically dimethylates the 5' monophosphate of pre-miRNAs, acting as a negative regulator of miRNA processing. The 5' monophosphate of pre-miRNAs is recognized by DICER1 and is required for pre-miRNAs processing: methylation at this position reduces the processing of pre-miRNAs by DICER1. Able to mediate methylation of pre-miR-145, as well as other pre- miRNAs.

BCDIN3D Blocking Peptide (C-Term) - References

Ota T.,et al.Nat. Genet. 36:40-45(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Xhemalce B.,et al.Cell 151:278-288(2012).