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MEPCE Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP13105c

Specification

MEPCE Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q7L2J0

MEPCE Antibody (Center) Blocking Peptide - Additional Information

Gene ID 56257

Other Names
7SK snRNA methylphosphate capping enzyme, MePCE, 211-, Bicoid-interacting protein 3 homolog, Bin3 homolog, MEPCE, BCDIN3

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13105c was selected from the Center region of MEPCE. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

MEPCE Antibody (Center) Blocking Peptide - Protein Information

Name MEPCE {ECO:0000303|PubMed:30559425, ECO:0000312|HGNC:HGNC:20247}

Function
S-adenosyl-L-methionine-dependent methyltransferase that adds a methylphosphate cap at the 5'-end of 7SK snRNA (7SK RNA), leading to stabilize it (PubMed:17643375, PubMed:19906723, PubMed:30559425). Also has a non-enzymatic function as part of the 7SK RNP complex: the 7SK RNP complex sequesters the positive transcription elongation factor b (P-TEFb) in a large inactive 7SK RNP complex preventing RNA polymerase II phosphorylation and subsequent transcriptional elongation (PubMed:17643375). The 7SK RNP complex also promotes snRNA gene transcription by RNA polymerase II via interaction with the little elongation complex (LEC) (PubMed:28254838). In the 7SK RNP complex, MEPCE is required to stabilize 7SK

RNA and facilitate the assembly of 7SK RNP complex (PubMed:19906723, PubMed:38100593). MEPCE has a non- enzymatic function in the 7SK RNP complex; interaction with LARP7 within the 7SK RNP complex occluding its catalytic center (PubMed:19906723). Also required for stability of U6 snRNAs (PubMed:38100593).

Cellular Location
Nucleus.

Tissue Location
Expressed in chronic myeloid leukemia cells, adrenal gland, brain, cerebellum, kidney, lung, mammary gland and testis (PubMed:12358911). Weakly or not expressed in other tissues (PubMed:12358911).

MEPCE Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

MEPCE Antibody (Center) Blocking Peptide - Images

MEPCE Antibody (Center) Blocking Peptide - Background

S-adenosyl-L-methionine-dependent methyltransferase that adds a methylphosphate cap at the 5'-end of 7SK snRNA, leading to stabilize it.

MEPCE Antibody (Center) Blocking Peptide - References

Xue, Y., et al. Nucleic Acids Res. 38(2):360-369(2010)Krueger, B.J., et al. Nucleic Acids Res. 36(7):2219-2229(2008)Kaneko, S., et al. Proc. Natl. Acad. Sci. U.S.A. 104(45):17620-17625(2007)Jeronimo, C., et al. Mol. Cell 27(2):262-274(2007)Olsen, J.V., et al. Cell 127(3):635-648(2006)