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MEPCE Rabbit pAb

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Catalog # AP57251

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q7L2J0
Reactivity	Human, Mouse
Predicted	Rat, Pig, Dog, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	74355
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MEPCE
Epitope Specificity	181-280/689
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	MEPCE belongs to the methyltransferase superfamily and contains one BIN3 domain. It is an S-adenosyl-L-methionine-dependent methyltransferase that adds a methylphosphate cap at the 5'-end of 7SK snRNA, leading to stabilize it. MEPCE is expressed in chronic myeloid leukemia cells, adrenal gland, brain, cerebellum, kidney, lung, mammary gland and testis. It is weakly or not expressed in other tissues.

Additional Information

Gene ID	56257
Other Names	7SK snRNA methylphosphate capping enzyme, MePCE, 2.1.1.-, Bicoid-interacting protein 3 homolog, Bin3 homolog, MEPCE {ECO:0000303|PubMed:30559425, ECO:0000312|HGNC:HGNC:20247}
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 μg/Test,ICC/IF=1:50-200
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

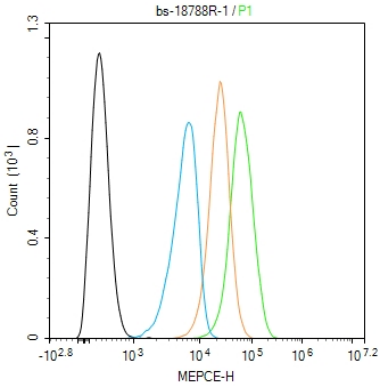
Protein Information

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).

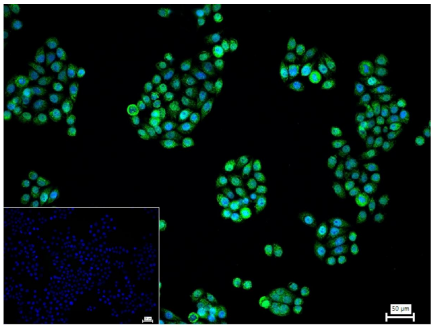
Background

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Images

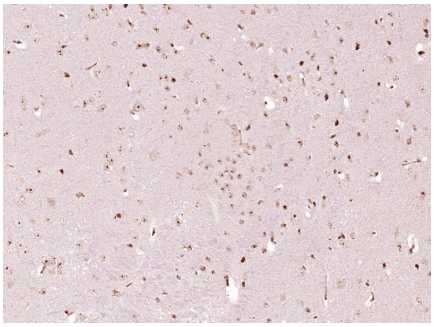


The MCF-7 (H) cells were fixed with 4% PFA (10 min at r.t.) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C,the cells then were incubated in 5%BSA to block non-specific protein-protein interactions (30 min at r.t.).Primary Antibody (green):Rabbit Anti-MEPCE antibody (AP57251): 1 µg/10^6 cells; Secondary Antibody (white blue): Goat anti-Rabbit IgG-BF488 (AP57251-BF488): 1 µg/test. Isotype Control (orange): Rabbit IgG (AP57251). Blank control (black): PBS. Acquisition of 20,000 events was performed.



4% Paraformaldehyde-fixed MCF-7 (H) cell; Triton X-100 at r.t. for 20 min; Antibody incubation with (MEPCE) polyclonal Antibody, unconjugated (AP57251) 1:100, 90 min at 37°C; followed by conjugated Goat Anti-Rabbit IgG antibody (green, AP57251-BF488) at 37°C for 90 min, DAPI (blue, C02-04002) was used to stain the cell nuclei. PBS instead of the primary antibody was used as the blank control.

Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate



buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MEPCE) Polyclonal Antibody, Unconjugated (AP57251) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.