

Goat Anti-Bin3 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1156a**Specification**

Goat Anti-Bin3 Antibody - Product Information

Application	WB, E
Primary Accession	Q7L2J0
Other Accession	NP_062552 , 56257
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	74355

Goat Anti-Bin3 Antibody - Additional Information**Gene ID** 56257**Other Names**

7SK snRNA methylphosphate capping enzyme, MePCE, 2.1.1.-, Bicoid-interacting protein 3 homolog, Bin3 homolog, MEPCE, BCDIN3

Dilution

WB~~1:1000

E~~N/A

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-Bin3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Bin3 Antibody - 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:<a

[17643375](http://www.uniprot.org/citations/17643375), PubMed: [19906723](http://www.uniprot.org/citations/19906723), PubMed: [30559425](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/17643375)). The 7SK RNP complex also promotes snRNA gene transcription by RNA polymerase II via interaction with the little elongation complex (LEC) (PubMed: [28254838](http://www.uniprot.org/citations/28254838)). In the 7SK RNP complex, MEPCE is required to stabilize 7SK RNA and facilitate the assembly of 7SK RNP complex (PubMed: [19906723](http://www.uniprot.org/citations/19906723), PubMed: [38100593](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/19906723)). Also required for stability of U6 snRNAs (PubMed: [38100593](http://www.uniprot.org/citations/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).

Goat Anti-Bin3 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-Bin3 Antibody - Images



AF1156a (0.3 µg/ml) staining of K562 lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-Bin3 Antibody - References

A capping-independent function of MePCE in stabilizing 7SK snRNA and facilitating the assembly of 7SK snRNP. Xue Y, et al. Nucleic Acids Res, 2010 Jan. PMID 19906723.

Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. Cell, 2009 Jul 23. PMID 19615732.

LARP7 is a stable component of the 7SK snRNP while P-TEFb, HEXIM1 and hnRNP A1 are reversibly associated. Krueger BJ, et al. Nucleic Acids Res, 2008 Apr. PMID 18281698.

Human capping enzyme promotes formation of transcriptional R loops in vitro. Kaneko S, et al. Proc Natl Acad Sci U S A, 2007 Nov 6. PMID 17978174.

Systematic analysis of the protein interaction network for the human transcription machinery reveals the identity of the 7SK capping enzyme. Jeronimo C, et al. Mol Cell, 2007 Jul 20. PMID 17643375.