

MBTD1 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11372b**Specification**

MBTD1 Antibody (C-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q05BQ5
Other Accession	Q6P5G3 , NP_060113.2
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	70547
Antigen Region	564-592

MBTD1 Antibody (C-term) - Additional Information**Gene ID** 54799**Other Names**

MBT domain-containing protein 1, MBTD1

Target/Specificity

This MBTD1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 564-592 amino acids from the C-terminal region of human MBTD1.

Dilution

WB~~1:1000

IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

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

Precautions

MBTD1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

MBTD1 Antibody (C-term) - Protein Information**Name** MBTD1 {ECO:0000303|PubMed:23915195, ECO:0000312|HGNC:HGNC:19866}**Function** Chromatin reader component of the NuA4 histone acetyltransferase complex, a

multi-protein complex involved in transcriptional activation of select genes principally by acetylation of nucleosomal histones H4 and H2A (PubMed:[27153538](#), PubMed:[32209463](#)). The NuA4 complex plays a direct role in repair of DNA double-strand breaks (DSBs) by promoting homologous recombination (HR) (PubMed:[27153538](#)). MBTD1 specifically recognizes and binds monomethylated and dimethylated 'Lys-20' on histone H4 (H4K20me1 and H4K20me2, respectively) (PubMed:[19841675](#), PubMed:[27153538](#), PubMed:[32209463](#)). In the NuA4 complex, MBTD1 promotes recruitment of the complex to H4K20me marks by competing with TP53BP1 for binding to H4K20me (PubMed:[27153538](#)). Following recruitment to H4K20me at DNA breaks, the NuA4 complex catalyzes acetylation of 'Lys-15' on histone H2A (H2AK15), blocking the ubiquitination mark required for TP53BP1 localization at DNA breaks, thereby promoting homologous recombination (HR) (PubMed:[27153538](#)).

Cellular Location

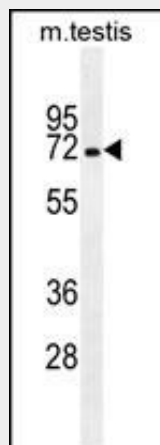
Nucleus. Chromosome

MBTD1 Antibody (C-term) - Protocols

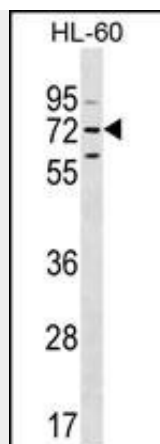
Provided below are standard protocols that you may find useful for product applications.

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

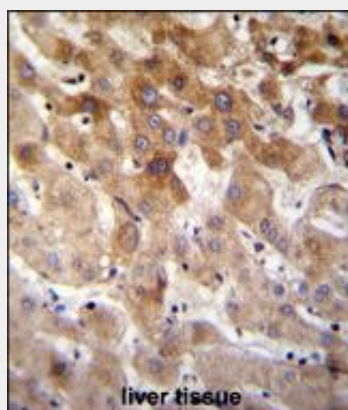
MBTD1 Antibody (C-term) - Images



MBTD1 Antibody (C-term) (Cat. #AP11372b) western blot analysis in mouse testis tissue lysates (35ug/lane). This demonstrates the MBTD1 antibody detected the MBTD1 protein (arrow).



MBTD1 Antibody (C-term) (Cat. #AP11372b) western blot analysis in HL-60 cell line lysates (35ug/lane). This demonstrates the MBTD1 antibody detected the MBTD1 protein (arrow).



MBTD1 Antibody (C-term) (Cat. #AP11372b) immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of MBTD1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

MBTD1 Antibody (C-term) - Background

Putative Polycomb group (PcG) protein. PcG proteins maintain the transcriptionally repressive state of genes, probably via a modification of chromatin, rendering it heritably changed in its expressibility (By similarity). Specifically binds to monomethylated and dimethylated 'Lys-20' on histone H4.

MBTD1 Antibody (C-term) - References

Eryilmaz, J., et al. PLoS ONE 4 (10), E7274 (2009) :