

PRODUCT DATA SHEET

Bioworld Technology, Inc.

Pan DiMethyl-lysine polyclonal antibody

Catalog: BS74121 Host: Rabbit Reactivity: Human, Mouse, Rat, Other (Wide Range)

BackGround:

Methylation is a major post-translational modification (PTM) generated by methyltransferase on target proteins, protein methylation plays important regulatory roles in gene expression, protein activity and stability, and signal transduction. Methylation can occur on specific lysine or arginine residues localized within regulatory domains in both histone and nonhistone proteins, thereby allowing distinguished properties of the targeted protein. Lysine can be methylated to different degrees, including mono-, di-, or trimethylation, which reflects its functional diversity and regulatory complexity compared to other PTMs. Lys9 of histone H3 is mono- or di-methylated by G9A/GLP and tri-methylated by SETDB1 to activate transcription. Tumor suppressor p53 is regulated by methylation of at least four sites. p53-mediated transcription is repressed following mono-methylation of p53 at Lys370 by SMYD2; Di-methylation at the same residue further inhibits p53 by preventing association with 53BP1. Concomitant di-methylation at Lys382 inhibits p53 ubiquitination following **DNA** damage. Di-methylation at Lys373 by G9A/GLP inhibits p53-mediated apoptosis correlates with and tri-methylation of histone H3 Lys9 at the p21 promoter.

Product:

1 mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

Molecular Weight:

15-60KDa

Swiss-Prot:

Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB,1:500 - 1:2000|IHC,1:50 - 1:100|IF/ICC,1:50 - 1:100|IP,1:50 - 1:100

Storage&Stability:

Store at $4\,^{\circ}$ C short term. Aliquot and store at -20 $^{\circ}$ C long term. Avoid freeze-thaw cycles.

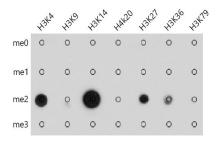
Modification:

Methylated

DATA:



Western blot analysis of extracts of various cell lines, using Pan DiMethyl-lysine antibody at 1:500 dilution.
Secondary antibody: HRP Goat Anti-Rabbit IgG at 1:10000 dilution.
br/>Lysates/proteins: 25ug per lane.
br/>Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit.
Exposure time: 10s.



Dot-blot analysis of all sorts of methylation peptides using Pan DiMethyl-lysine antibody at 1:1000 dilution.

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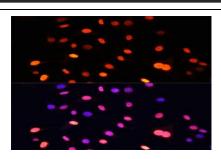
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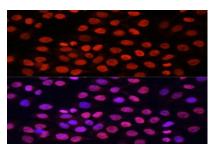


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Immunofluorescence analysis of C6 cells using Pan DiMethyl-lysine antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of HeLa cells using Pan DiMethyl-lysine antibody at dilution of 1:100. Blue: DAPI for nuclear staining.

Note:

For research use only, not for use in diagnostic procedure.

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