

# Writers - Proteins & Antibodies

## IMPROVE YOUR EPIGENETIC RESEARCH LANDSCAPE

### WRITER DOMAINS - PROTEINS & ANTIBODIES



#### EPIGENETIC WRITERS

DNA Methyltransferases (DNMTs)
Histone Acetyltransferases (HATs)
Kinases
Poly(ADP-ribose) Polymerases (PARPs)
Protein Arginine Methyltransferases (PRMTs)
Protein Lysine Methyltransferases (PKMTs)
Ubiquitin E2 Conjugases and Ubiquitin E3 Ligases

**Epigenetic Writers** catalyze the addition of chemical groups like the acetyl, methyl, phosphate or ubiquitinyl groups to DNA or Histone to create "Epigenetic Marks". Such marks are crucial for gene expression and silencing. **Many of the epigenetic writers present as targets in therapeutic areas of cancer, diabetes and autoimmune diseases.** BioVision offers proteins and antibodies for a wide range of such therapeutic and many more targets.

### DNA Methyltransferases (DNMTs)

These enzymes catalyze the addition of methyl groups onto the cytosine residue of CpG dinucleotides on DNA to induce transcriptional activation/repression. Methylation anomalies have been shown to play a direct causal role in tumorigenesis and genetic disease.

#### DNMT Recombinant Proteins

Product Name	Cat. No.	Size
S-Adenosyl-L-methionine disulfate tosylate	2077	50 mg, 100 mg, 500 mg

#### DNMT Antibodies

Product Name	Cat. No.	Size
Anti-5-Hydroxymethylcytosine Antibody	A1295	50 µg
Anti-5-Methylcytosine Antibody	A1294	50 µg
ASH2 polyclonal antibody	6836	50 µl
CBX2 polyclonal antibody	6840	50 µl
DMAP1 Antibody	3715	100 µg
DNA Methyltransferase 1 (Clone 60B1220.1) Antibody	6110	50 µg
DNA Methyltransferase 3a (Clone 64B814.1) Antibody	6113	50 µg
DNMT1 Antibody	3946	100 µg
DNMT2 Antibody	3488	100 µg
DNMT2 polyclonal antibody	6848	50 µl
DNMT3a Antibody	3227	100 µg

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## DNMT Antibodies

Product Name	Cat. No.	Size
DNMT3A polyclonal antibody	6849	25 µg
DNMT3b Antibody	3275	100 µg
EHMT1 polyclonal antibody	6837	50 µl
EZH2 polyclonal antibody	6838	25 µg
MBD1 polyclonal antibody	6828	25 µg
MeCP2 Antibody	3199	100 µg
MeCP2 polyclonal antibody	6827	25 µg
S- Adenosylhomocysteine Antibody (Clone # 301-10)	6945	25 µl
S- Adenosylmethionine Antibody	6944	25 µl
S- Adenosylmethionine Antibody (Clone # 118-18)	6942	25 µl
S- Adenosylmethionine Antibody (Clone # 118-6)	6940	25 µl
S- Adenosylmethionine Antibody (Clone # 84-19)	6943	25 µl
S- Adenosylmethionine Antibody (Clone # 84-3)	6941	25 µl
Set9 polyclonal antibody	6841	25 µg
Setd1a polyclonal antibody	6842	50 µl
Setd1b polyclonal antibody	6843	50 µl
SETD8 polyclonal antibody	6844	25 µg
TAF1 polyclonal antibody	6845	50 µl
WDR5 polyclonal antibody	6846	50 µl

## Histone Acetyltransferases (HATs)

These enzymes catalyze the acetylation of lysine residues on histone proteins. In general, this acetylation leads to an increase in gene expression. HATs can also acetylate non-histone proteins, such as transcription factors and nuclear receptors to facilitate gene expression. Developmental aberrations in mice and certain human cancers are associated with HAT mutations.

### HAT Recombinant Proteins

Product Name	Cat. No.	Size
HeLa Nuclear Extract	1641	1 mg, 100 µg
PCAF, mouse recombinant	7556	10 µg

### HAT Antibodies

Product Name	Cat. No.	Size
Acetyl Lysine (Biotin) Antibody	6125	50 µg
Acetyl-Lysine Monoclonal Antibody	A1029	100 µg
HAT-1 Antibody	3689	100 µg
HAT-1 Blocking Peptide	3689BP	50 µg
HAT-2 Antibody	3692	100 µg
HAT-2 Blocking Peptide	3692BP	50 µg
HAT-3 Antibody	3707	100 µg
HAT-3 Blocking Peptide	3707BP	50 µg
KAT8 Antibody	6149	100 µg
NCOA1 Antibody	6153	100 µg
RBBP4 Antibody	6154	100 µg
TIP60 Antibody	6126	50 µg
TIP60 Antibody	6634	50 µg

## Kinases

Kinases play an important role in epigenetic regulation through PARP activation.

### Kinase Recombinant Proteins

Product Name	Cat. No.	Size
Active Pim 1	7742	5 µg
Active PIM2	7730	5 µg
Active PKCepsilon	7753	5 µg

### Kinase Antibodies

Product Name	Cat. No.	Size
ATM Antibody	3813	100 µg
ATR Antibody	3767	100 µg
PIM1 Antibody	3787R	100 µg
PKC Antibody	3450	100 µg
PKC Blocking Peptide	3450BP	50 µg
PIM1 Blocking Peptide	3787RBP	50 µg

## Poly (ADP-ribose) polymerase (PARPs)

These enzymes mediate the Poly ADP-ribosylation of proteins. They are mainly involved in DNA repair & cell death.

### PARP Recombinant Proteins

Product Name	Cat. No.	Size
PARP-1, human recombinant	4992	50 µg

### PARP Antibodies

Product Name	Cat. No.	Size
PARP (Cleaved) Antibody	3140	100 µg
PARP (Cleaved) Antibody	3141	100 µg
PARP Antibody	3002	30 µg, 100 µg
PARP Antibody (Clone 7A10)	3023	100 µl

### PARP Antibodies

Product Name	Cat. No.	Size
PARP Antibody	3002	100 µg
PARP Antibody (Clone 10H)	3000	100 µg
PARP Antibody (Clone 7A10)	3023	100 µg

## Protein Lysine Methyltransferase (PKMTs)

These enzymes mediate the generation of monomethylated or dimethylated arginine residues. The symmetry of the methyl groups added to arginine residues determines the biological effect of the epigenetic modification. Asymmetric dimethylation is linked to gene activation while symmetric dimethylation is associated with gene repression.

### PRMT Recombinant Proteins

Product Name	Cat. No.	Size
PRMT1, human recombinant (Active)	4865	10 µg, 50 µg, 1mg
PRMT1, mouse recombinant (Active)	4868	10 µg, 1mg

## PRMT Antibodies

Product Name	Cat. No.	Size
CARM1 Antibody	3734R	100 µg
PRMT1 Antibody	3792	100 µg
PRMT-5 Antibody	3935	100 µg
PRMT-5 Blocking Peptide	3935BP	50 µg
PRMT6 Antibody	3086	100 µg
PRMT7 Antibody	3059	100 µg
PRMT7 blocking peptide	3059BP	50 µg

## Protein Lysine Methyltransferase (PKMTs)

These enzymes catalyze the transfer of a methyl group from the co-factor S-adenosyl methionine (SAM) onto a lysine side chain on the exposed histone tail. Proteins differentially interact with these methylated histones based on the number of methyl residues added.

### PKMT Recombinant Proteins

Product Name	Cat. No.	Size
EED (1- 441aa), Human recombinant	7667	25 µg
Nicotinamide N-Methyltransferase, Human Recombinant (hNNMT)	7261	20 µg, 100 µg, 1 mg

## PKMT Antibodies

Product Name	Cat. No.	Size
EHMT2 Antibody	6152	100 µg
EZH1 Antibody	6123	50 µg
EZH2 Antibody	3242	100 µg
Methyl Lysine (Biotin) Antibody	6124	50 µg
NNMT Antibody	6673	30 µl, 100 µl
SETD3 Antibody	3197	100 µg
SETDB1 Antibody	6155	100 µg
Swi6 Antibody	6285	100 µg

## Ubiquitin E2 Conjugases & Ubiquitin E3 Ligases

Lysine residues on histone proteins H2A and H2B can undergo monoubiquitination through the concerted actions of E2 ubiquitin conjugases and E3 ubiquitin ligases which forms a very critical epigenetic mark. Depending on the location of ubiquitination, transcription can either be activated or repressed.

### Ubiquitin Recombinant Proteins

Product Name	Cat. No.	Size
Human recombinant UBE2D3	6430	3 nmol
Human recombinant UBE2E2 (UbcH8)	6438	3 nmol
Human recombinant UBE2L3	6431	3 nmol
Human recombinant UBE2R1 (CDC34)	6436	3 nmol
Human recombinant UBE2R2 (Ubc3B)	6437	3 nmol
Human recombinant Ubiquitin Activating Enzyme E1	6429	50 µg
UbcH1, human recombinant (GST-tag)	4846	10 µg, 100 µg
UbcH2, human recombinant (His-tag)	4848	100 µg
UbcH3, human recombinant (His-tag)	4849	100 µg
UbcH5a, human recombinant (His-tag)	4851	10 µg

## Ubiquitin Recombinant Proteins

Product Name	Cat. No.	Size
UbcH5b, human recombinant (His-tag)	4852	10 µg
UbcH5c, human recombinant (His-tag)	4854	100 µg

## Epigenetic Ubiquitination Antibodies

Product Name	Cat. No.	Size
USP7 Antibody	3747	100 µg

## Related Products

Category	Product Type
Histones	Core Histones, Linker Histones
Reader Domains	Bromodomains, Tudor Domains, MBT Domains
Eraser Enzymes	HDACs, HDMs, HIF, PTPs, SIRTs, & many more

Please visit [www.BioVision.com](http://www.BioVision.com) for a complete list of Epigenetic Writers Kits.