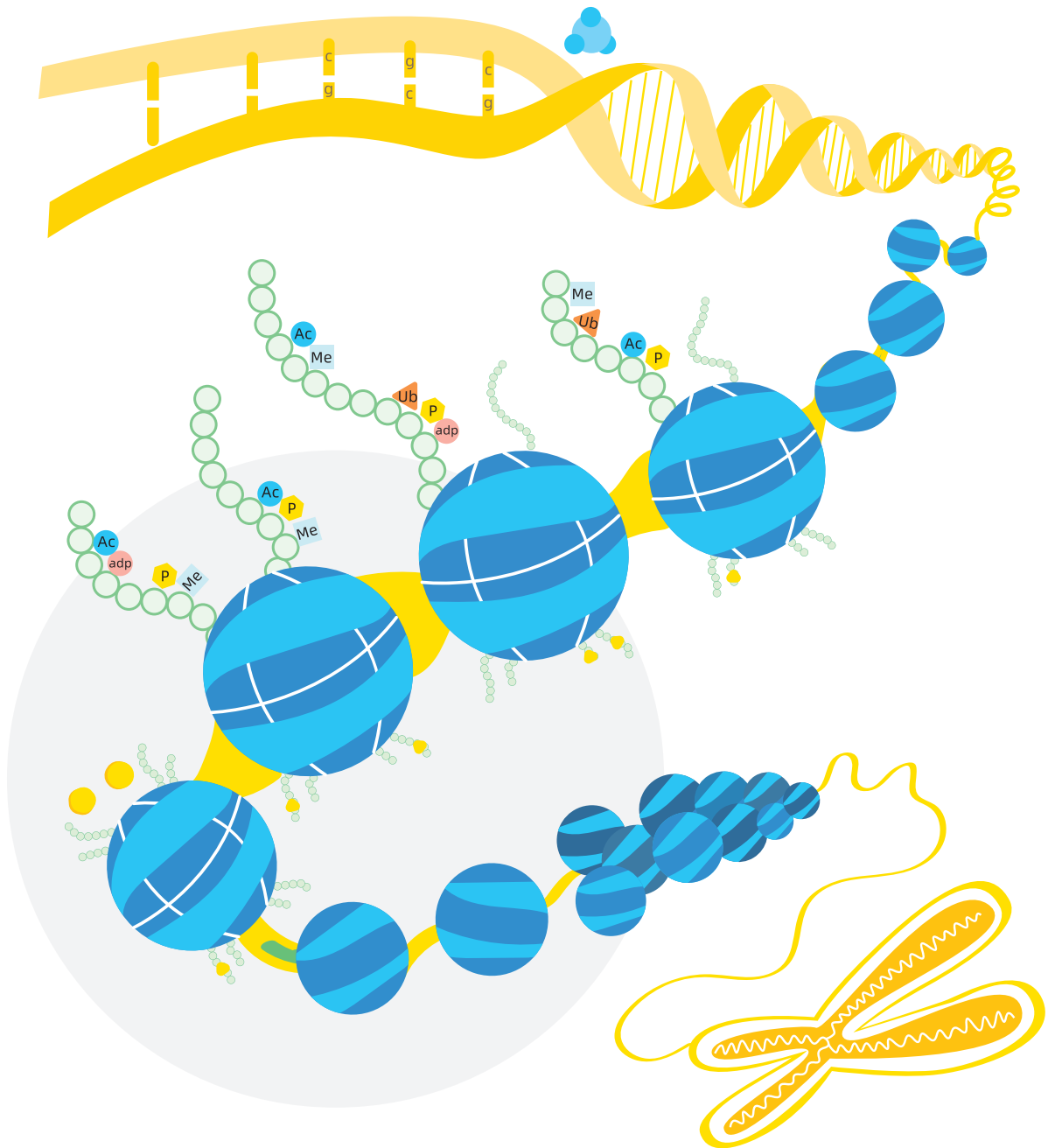


Complete Solutions for Epigenetics Research



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COMPANY PROFILE

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ABOUT US

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Innovation is in our DNA, with worldwide R&D centers focusing on technical innovation and product development for protein science and molecular biology.

ABclonal always listen carefully to the opinions and feedback from talented scientists across the globe, and quickly translate their needs into a product development pipeline dedicated to developing valuable research tools based on state-of-the-art technologies, to meet the needs of innovation in a timely manner.

Introduction

Epigenetics is a branch of genetics that studies reversible modifications of nucleotides or histones without altering the DNA sequence. Epigenetics encompasses a wide range of research topics, including histone modifications, histone-modifying enzymes, transcription factor regulation, DNA methylation, RNA modifications, and various research methods such as WB (Western blot), IP (immunoprecipitation), ChIP (chromatin immunoprecipitation), as well as high-throughput techniques like ChIP-seq and CUT&Tag.

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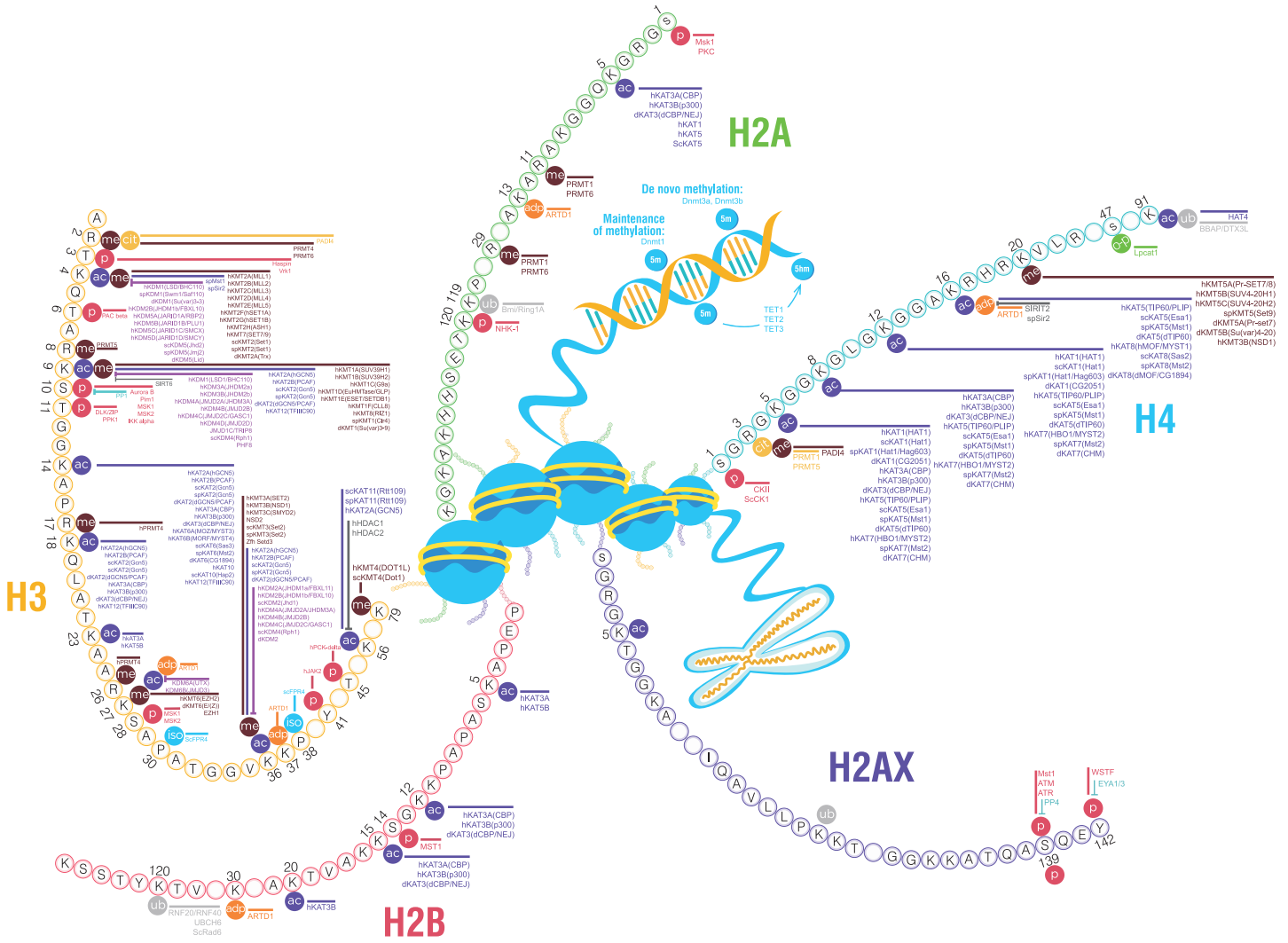
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EPIGENETIC MODIFICATIONS



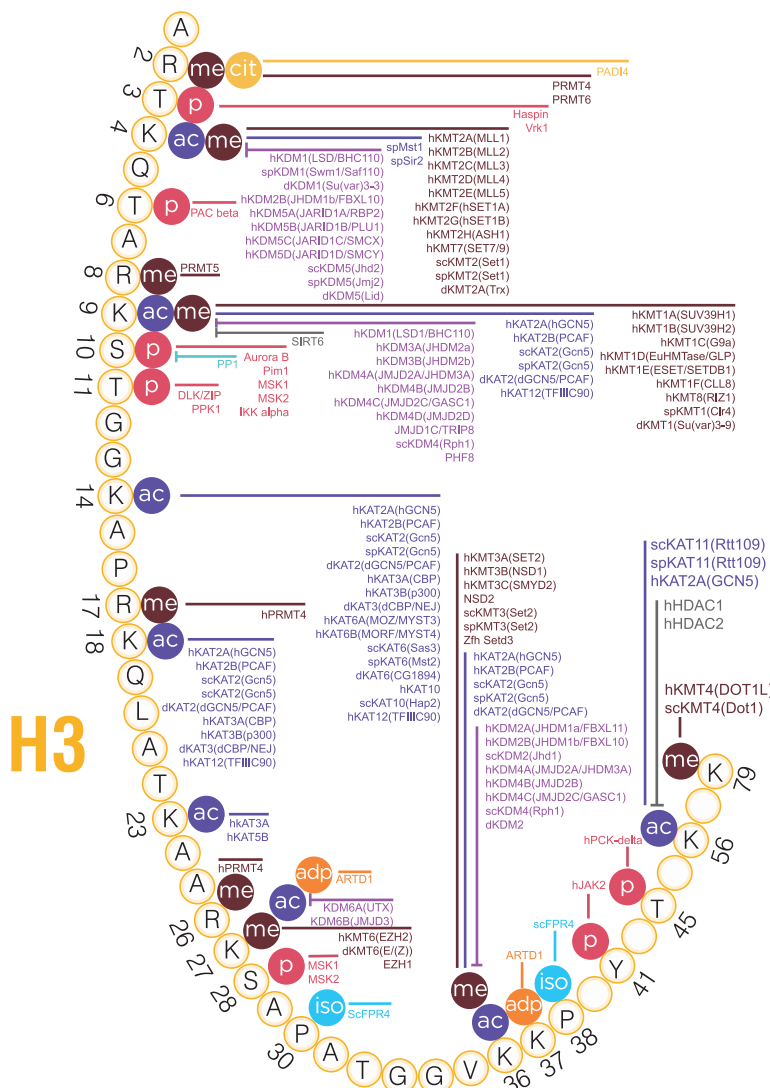
Key | Histone and DNA modifications

- ac** Acetylation
- cit** Deimination
- o-p** O-palmitoylation
- adp** ADP Ribosylation
- Deacetylation
- P** Phosphorylation
- Dephosphorylation
- me** Methylation
- ub** Ubiquitination
- 5m** 5-Methylcytosine
- 5hm** 5-Hydroxymethylcytosine
- Demethylation
- iso** Isomerization

Tools for Gene Transcription Regulation Research

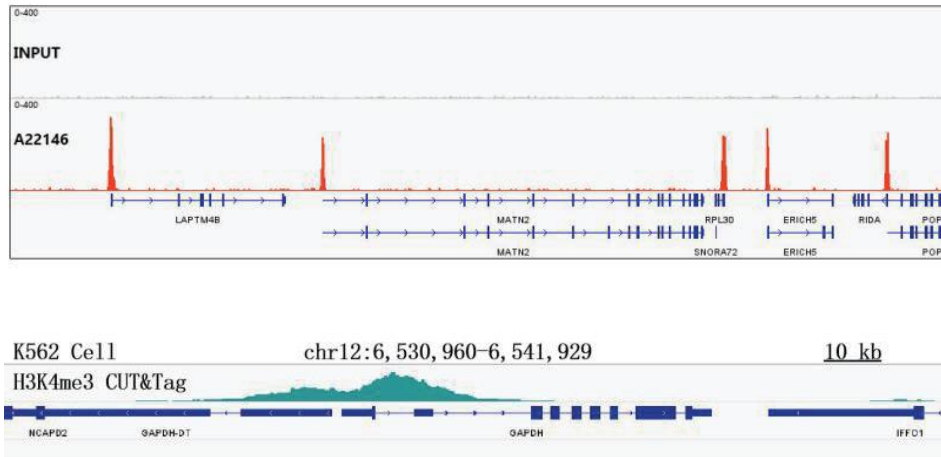
Research on Histone Modifications

Histones undergo various forms of post-translational modifications (PTMs), which influence their interaction with DNA. Some modifications disrupt the histone-DNA interaction, leading to nucleosome unwinding. Abnormal modifications directly result in chromatin structure relaxation, dysregulated gene expression, and the development of various diseases, such as neurological disorders, cardiovascular diseases, chronic kidney diseases, and immune disorders. Currently, at least nine known types of histone modifications have been identified. Acetylation, methylation, phosphorylation, and ubiquitination are the most well-known, while N-acetylglucosamine glycosylation, glycation, butyrylation, and isomerization are modifications discovered more recently. Each modification is added or removed from histone amino acid residues by a specific set of enzymes.



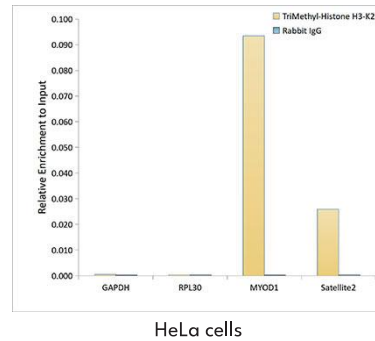
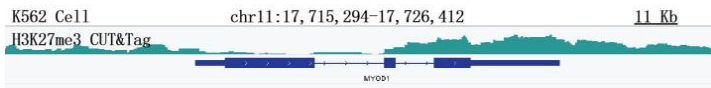
TriMethyl-Histone H3-K4 Rabbit mAb Cat.No.: A22146

Application: ChIP-seq, CUT&Tag, ChIP, IHC-P, IF/ICC, IP, WB, DB Reactivity: H, M, R, Other (Wide Range)



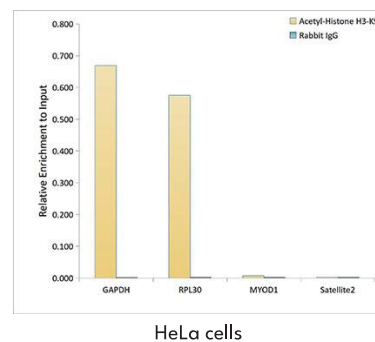
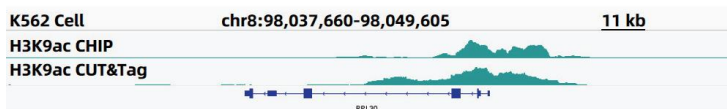
TriMethyl-Histone H3-K27 Rabbit mAb Cat.No.: A22396

Application: CUT&Tag, ChIP, IHC-P, IF/ICC, IP, WB Reactivity: H, M, R, Other (Wide Range)



Acetyl-Histone H3-K9 Rabbit mAb Cat.No.: A21107

Citations (1) Application: CUT&Tag, ChIP, IHC-P, IF/ICC, IP, WB, DB Reactivity: H, M, R, Other (Wide Range)



// Histone Modification Antibodies

Category	Cat.No.	Product Name	Application	Reactivity
Histone	A4342	Histone H1.0 Rabbit mAb	IF/ICC,WB	H,M,R
	A3692	Histone H2A Rabbit mAb	IF/ICC,WB,IP	H,M,R,Other (Wide Range)
	A11412	Histone H2AX Rabbit mAb	ChIP,IF/ICC,WB	H,M,R,Other (Wide Range)
	A22348	Histone H3 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB	H,M,R, <i>Oryza sativa</i>
	A4835	Histone H3.3 Rabbit mAb	ChIP-seq,ChIP,IF/ICC,WB,IP	H,M,R,Other (Wide Range)
	A23000	Histone H4 Rabbit mAb	ChIP,IHC-P,IF/ICC,WB	H,M,R
	A19815	Histone H4 Rabbit mAb	IF/ICC,WB	H,M,R,Other (Wide Range)
Acetyl-Histone	A21107	Acetyl-Histone H3-K9 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB	H,M,R,Other (Wide Range)
	A22567	Acetyl-Histone H3-K9 Rabbit mAb	ChIP,IHC-P,IF/ICC,WB,DB	H,M,R,Other (Wide Range)
	A22565	Acetyl-Histone H3-K56 Rabbit mAb	ChIP-seq,ChIP,IHC-P,IF/ICC,WB,DB	H,M,R,Other (Wide Range)
	A22264	Acetyl-Histone H3-K27 Rabbit mAb	ChIP-seq,ChIP,IHC-P,IF/ICC,WB,DB	H,M,R,Other (Wide Range)
	A2771	Acetyl-Histone H3-K27 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB,DB	H,M,R,Other (Wide Range)
	A2770	Acetyl-Histone H3-K23 Rabbit mAb	ChIP-seq,ChIP,IHC-P,IF/ICC,WB,DB	H,M,R,Other (Wide Range)
	A20735	Acetyl-Histone H3-K18 Rabbit mAb	CUT&Tag,ChIP-seq,ChIP,IHC-P,DB,WB	H,M,R,Other (Wide Range)
	A22566	Acetyl-Histone H3-K18 Rabbit mAb	ChIP,IHC-P,IF/ICC,WB,DB	H,M,R,Other (Wide Range)
	A22054	Acetyl-Histone H3-K4/K9/K14/K18/K23/K27 Rabbit mAb	CUT&Tag,ChIP-seq,ChIP,IHC-P,IP,WB	H,M,R,Other (Wide Range)
	A19525	Acetyl-Histone H4-K5 Rabbit mAb	IHC-P,IF/ICC,DB,WB	H,M,R,Other (Wide Range)
	A23080	Acetyl-Histone H4-K5 Rabbit mAb	ChIP,IHC-P,WB	H,M,R,Other (Wide Range)
	A22754	Acetyl-Histone H4-K12 Rabbit mAb	ChIP,IHC-P,IP,WB,DB	H,M,R
	A23091	Acetyl-Histone H4-K16 Rabbit mAb	ChIP,IHC-P,IP,WB,DB	H,M,R
A22099	Acetyl-Histone H4-K5/K8/K12/K16 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,DB,WB	H,M,R	
MonoMethyl-Histone	A20680	MonoMethyl-Histone H3-K18 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB,DB	H,M,R
	A22170	MonoMethyl-Histone H3-K27 Rabbit mAb	ChIP,IF/ICC,DB,WB	H,M,R,Other (Wide Range)
	A22863	MonoMethyl-Histone H3-K36 Rabbit mAb	IF/ICC,WB,DB	H,M,R,Other (Wide Range)

COMPLETE SOLUTIONS FOR EPIGENETICS RESEARCH

Category	Cat.No.	Product Name	Application	Reactivity
MonoMethyl-Histone	A22078	MonoMethyl-Histone H3-K4 Rabbit mAb	CUT&Tag,IHC-P, IF/ICC,WB,DB	H,M,R,Other (Wide Range)
	A21223	MonoMethyl-Histone H3-K79 Rabbit mAb	ChIP-seq,ChIP, IF/ICC,WB,DB	H,M,R,Other (Wide Range)
	A20734	MonoMethyl-Histone H3-K9 Rabbit mAb	CUT&Tag,ChIP,IHC-P, IF/ICC,WB,DB	H,M,R,Other (Wide Range)
	A19645	MonoMethyl-Histone H3-R2 Rabbit mAb	CUT&Tag,ChIP,DB,WB	H,M,R,Other (Wide Range)
	A22572	MonoMethyl-Histone H4-K20 Rabbit mAb	IF/ICC,WB,DB	H,M,R,Other (Wide Range)
DiMethyl-Histone	A22143	DiMethyl-Histone H3-K4 Rabbit mAb	ChIP-seq,ChIP, IF/ICC,IP,DB,WB	H,M,R,Other (Wide Range)
	A22221	DiMethyl-Histone H3-K36 Rabbit mAb	IHC-P,DB,WB	H,M,R,Other (Wide Range)
	A22087	DiMethyl-Histone H3-K36 Rabbit mAb	ChIP,IHC-P,IF/ICC,WB, DB,IP	H,M,R,Other (Wide Range)
	A22086	DiMethyl-Histone H3-K79 Rabbit mAb	ChIP-seq,ChIP,IHC-P, IF/ICC,DB,IP,WB	H,M,R,Other (Wide Range)
	A22142	DiMethyl-Histone H3-K79 Rabbit mAb	ChIP-seq,ChIP,DB,WB	Human,Mouse
	A22269	DiMethyl-Histone H4-K20 Rabbit mAb	IHC-P,DB,WB	H,M,R,Other (Wide Range)
	A22268	DiMethyl-Histone H4-K20 Rabbit mAb	IHC-P,IF/ICC,DB,WB	H,M,R,Other (Wide Range)
Symmetric DiMethyl-Histone	A22291	Symmetric DiMethyl-Histone H3-R17 Rabbit mAb	IF/ICC,WB,DB	H,M,R,Other (Wide Range)
	A21207	Symmetric DiMethyl-Histone H3-R8 Rabbit mAb	ChIP,IF/ICC,IHC-P,WB,DB	H,M,R,Other (Wide Range)
TriMethyl-Histone	A22225	TriMethyl-Histone H3-K4 Rabbit mAb	ChIP,IHC-P,IF/ICC,WB,DB	H,M,R,Other (Wide Range)
	A22146	TriMethyl-Histone H3-K4 Rabbit mAb	CUT&Tag,ChIP-seq,ChIP,IHC-P,IF/ICC,IP, WB,DB	H,M,R,Other (Wide Range)
	A22295	TriMethyl-Histone H3-K9 Rabbit mAb	ChIP-seq,ChIP,IF/ICC, WB,DB	H,M,R
	A22396	TriMethyl-Histone H3-K27 Rabbit mAb	CUT&Tag,ChIP,IHC-P, IF/ICC,IP,WB	H,M,R,Other (Wide Range)
	A22006	TriMethyl-Histone H3-K27 Rabbit mAb	ChIP,IF/ICC,IP,DB,WB	H,M,R,Other (Wide Range)
	A20379	TriMethyl-Histone H3-K36 Rabbit mAb	ChIP-seq,ChIP,IHC-P, IP,WB,DB	H,M,R,Other (Wide Range)
Formyl-Histone	A0065	Formyl-Histone H2B-K120 Rabbit mAb	IF/ICC,WB	H,M,R
Phospho-Histone	AP1132	Phospho-Histone H1.3-T17/Histone H1.4-T17 Rabbit mAb	WB	H,M,R
	AP0687	Phospho-Histone H2AX-S139 Rabbit mAb	IHC-P,WB	H,M,R
	AP1152	Phospho-Histone H3.3-T3 Rabbit mAb	WB	H,M,R,Other (Wide Range)
	AP0002	Phospho-Histone H3-S10 Rabbit mAb	IHC-P,IF/ICC,WB	H,M,R,Other (Wide Range)

// Tools for Histone Modification Research

Cat.No.	Product Name	Application	Size
DNA Acetylation	RK10714	ELISA	48/96 Test

// Citations

Title	Journal	Impact factor	Cat.No.
A RIPK3-independent role of MLKL in suppressing parthanatos promotes immune evasion in hepatocellular carcinoma	Cell discovery	38.07	Histone H2A Rabbit mAb (A3692)
H3K36me2 methyltransferase NSD2 orchestrates epigenetic reprogramming during spermatogenesis	Nucleic Acids Res	19.16	Acetyl-Histone H4-K5 Rabbit mAb (A19525)
Hyperpolyploidization of hepatocyte initiates preneoplastic lesion formation in the liver	Nat Commun	17.694	Phospho-Histone H2AX-S139 Rabbit mAb (AP0687)
Wogonin induces cellular senescence in breast cancer via suppressing TXNRD2 expression	Arch Toxicol	6.168	Acetyl-Histone H3-K9 Rabbit mAb (A21107)

DNA Methylation Research

Chemical modification of DNA in the form of DNA methylation adds an additional layer of regulatory mechanism to gene expression. The human genome contains approximately 1% of methylated cytosines, with 5-methylcytosine (5mC) being the most abundant and widespread DNA modification, often considered as a stable inhibitory regulatory factor for gene expression (Moore et al., 2012). Initially, 5mC was found to be located within CpG islands, which are DNA segments rich in CpG dinucleotides commonly found in gene promoter regions. Within these promoter regions, 5mC acts as a stable epigenetic mark that inhibits gene transcription. In the mammalian genome, methylated cytosines are initially integrated into DNA during early developmental stages through de novo DNA methyltransferases, DNMT3a and DNMT3b (Okano et al., 1999). Subsequently, an additional methyltransferase, DNMT1, replicates the DNA methylation pattern onto the daughter strand during DNA replication, thereby maintaining these methyl marks throughout the entire genome (Vertino et al., 1996).

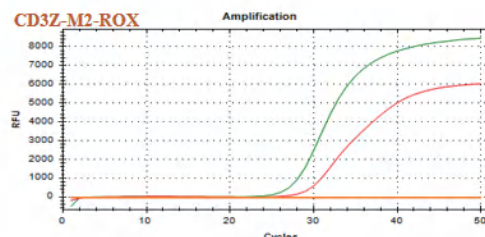
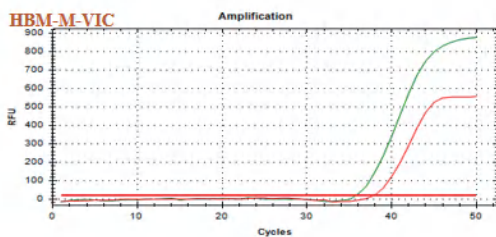
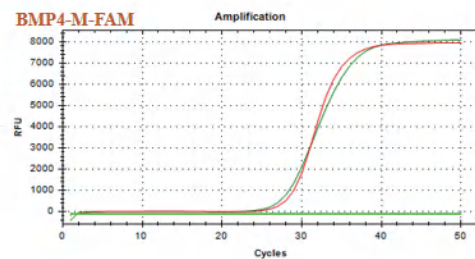
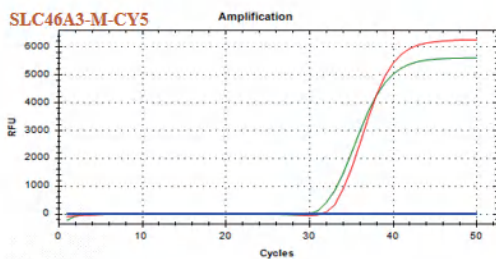




MethylLight 2X qPCR Probe Master Mix-RK21240 —DNA Methylation qPCR Detection Reagent

MethylLight 2X qPCR Probe Master Mix is a specialized reagent for MethylLight qPCR reactions based on the probe method. This product utilizes antibody-modified hot-start Taq DNA polymerase for amplification. Through optimization of the buffer system, the product enables the analysis of uracil-containing ssDNA, which has been pretreated using the bisulfite conversion method or enzyme conversion method, for multiplex MSP (Methylation-Specific PCR) analysis. It greatly enhances the ability to distinguish and detect methylated and non-methylated sequences while ensuring efficient multiplex MSP amplification. It is characterized by accurate quantification and good repeatability. This product provides a powerful tool for MSP analysis of methylated DNA and multi-target detection in epigenetic research.

// Product Data



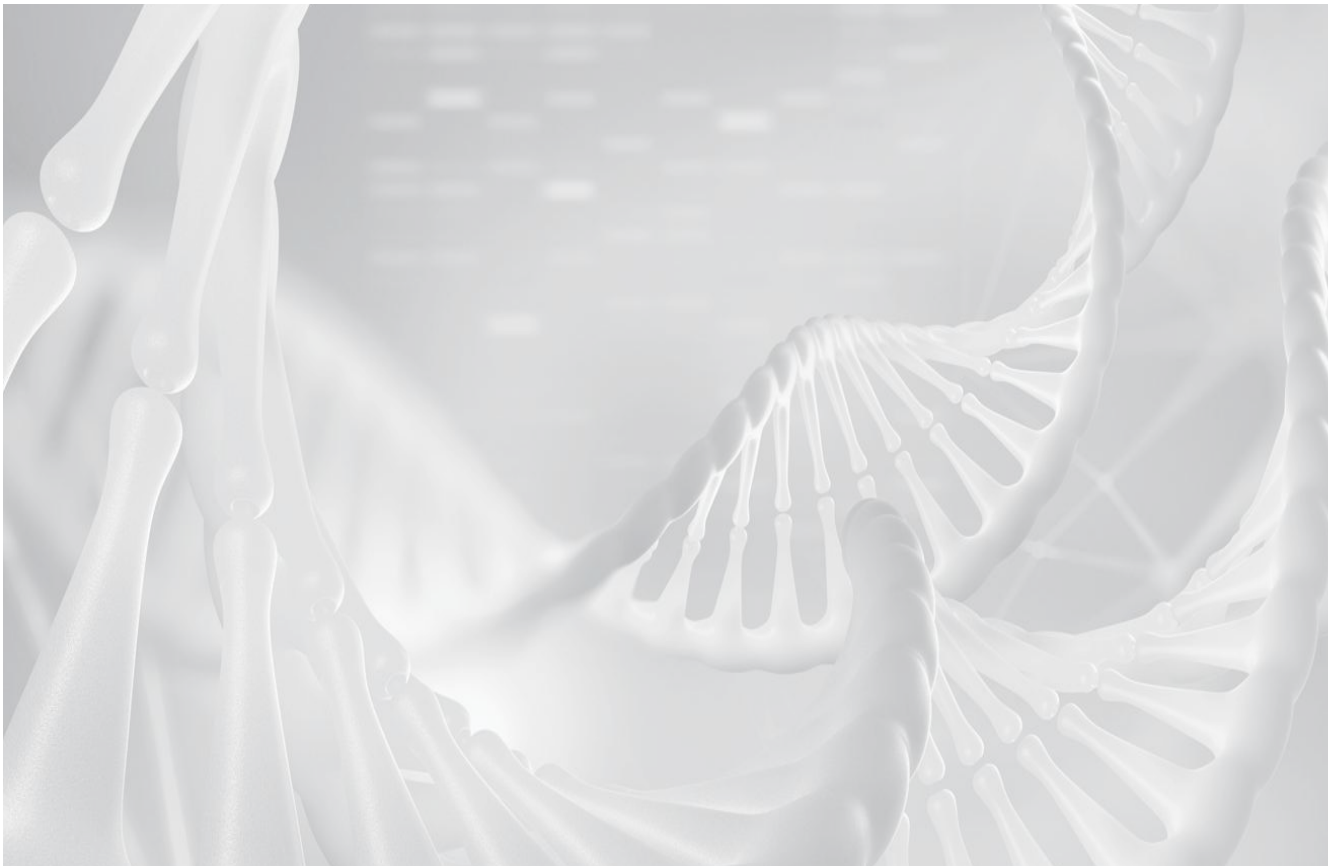
Performance Testing on Real Clinical Samples

Using SHYF84 - Lung Cancer with Multiple Metastasis samples, approximately 5 ng of ctDNA was inputted. After bisulfite conversion of the samples, qPCR detection was performed using RK21240 and a similar competitor product. The results showed that RK21240 (green) outperformed the competitor product (red).

Application	Cat.No.	Product Name	Description
Methylation qPCR	RK21240	MethyLight 2X qPCR Probe Master Mix	Specialized reagents for DNA methylation qPCR reaction, MSP analysis
DNA methyltransferase Mix/Kit	RK20722	Gloria U 2X HS Master Mix	Can effectively amplify templates containing thymine
	RK20723	Gloria U 2X Mix for NGS	Can be used for amplification of templates containing thymine or amplification of libraries containing thymine
Magnetic beads	RK20257	AFTMag NGS DNA Clean Beads	Nucleic acid purification, fragment selection

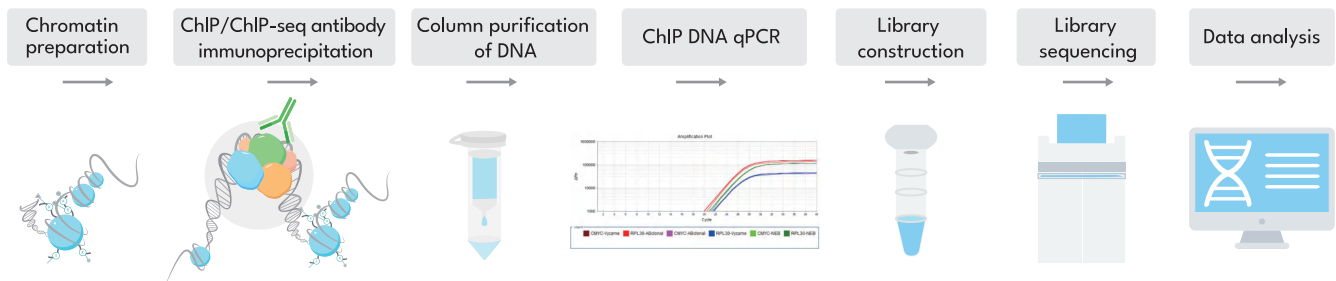
// Citations

Title	Journal	Impact factor	Cat.No.
Human PSCs determine the competency of cerebral organoid differentiation via FGF signaling and epigenetic mechanisms - PMC	iScience	6.1	Scale Methyl-DNA Lib Prep Kit for Illumina (RK20220)
Testicular histone hyperacetylation in mice by valproic acid administration affects the next generation by changes in sperm DNA methylation - PMC	PLoS one	3.75	Scale Methyl-DNA Lib Prep Kit for Illumina (RK20220)



Transcriptional Regulation Research Technique: ChIP-seq

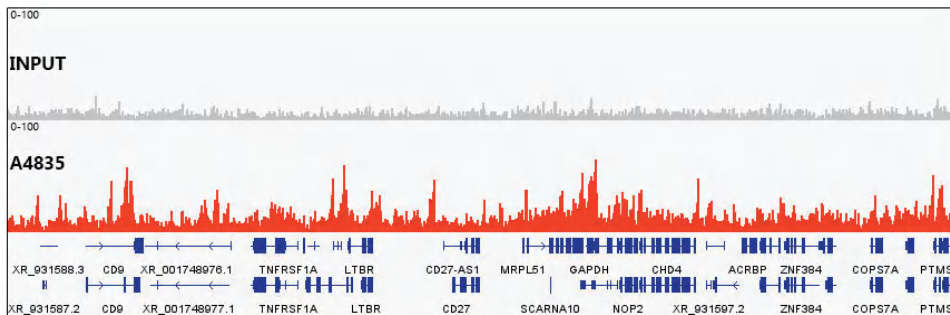
Chromatin Immunoprecipitation (ChIP), also known as binding site analysis, is a powerful tool for studying the interactions between proteins and DNA in living organisms. It is commonly used to investigate transcription factor binding sites or specific histone modification sites. ChIP-seq, which combines ChIP with second-generation sequencing technology, allows for efficient detection of DNA segments involved in interactions with histones, transcription factors, and other molecules throughout the entire genome. It is a commonly used technique in the field of epigenetics research.



// ChIP-Seq Validated Antibodies

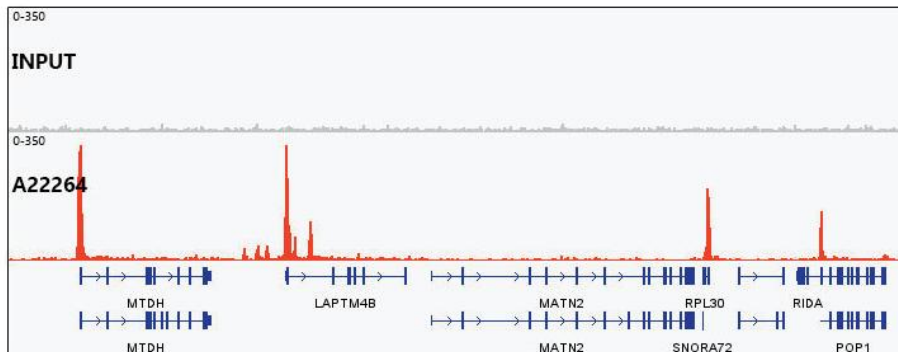
Histone H3.3 Rabbit mAb Cat.No.: A4835

Application: ChIP-seq, ChIP, IHC-P, IP, WB Reactivity: H, M, R, Other (Wide Range)



Acetyl-Histone H3-K27 Rabbit mAb Cat.No.: A22264

Application: ChIP-seq, ChIP, IHC-P, IF/ICC, WB, DB Reactivity: H, M, R, Other (Wide Range)

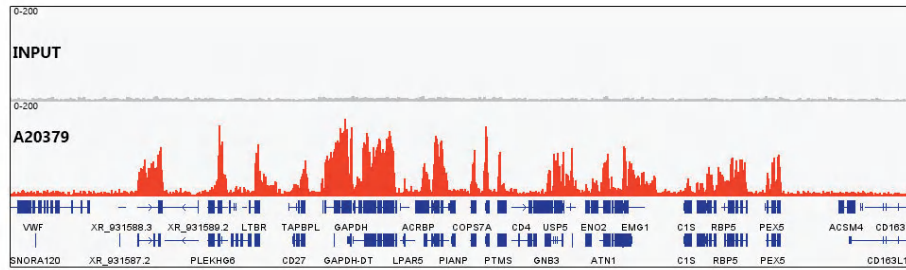


TriMethyl-Histone H3-K36 Rabbit mAb

Cat.No. : A20379

Application : ChIP-seq, ChIP, IHC-P, IP, WB, DB

Reactivity : H, M, R, Other (Wide Range)



// ChIP-Seq Validated Antibodies

Cat.No.	Product Name	Application	Reactivity
A11145	[KO Validated] CDK9 Rabbit mAb	ChIP-seq,CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB	H,M,R
A19588	CTCF Rabbit mAb	ChIP-seq,CUT&Tag,ChIP,IF/ICC,IP,WB	H,M,R
A4835	Histone H3.3 Rabbit mAb	ChIP-seq,ChIP,IHC-P,IP,WB	H,M,R,Other (Wide Range)
A20735	Acetyl-Histone H3-K18 Rabbit mAb	ChIP-seq,ChIP,CUT&Tag,IHC-P,DB,WB	H,M,R,Other (Wide Range)
A22264	Acetyl-Histone H3-K27 Rabbit mAb	ChIP-seq,ChIP,IHC-P,IF/ICC,WB,DB	H,M,R,Other (Wide Range)
A22054	Acetyl-Histone H3-K4/K9/K14/K18/K23/K27 Rabbit mAb	ChIP-seq,ChIP,IHC-P,IP,WB,CUT&Tag	H,M,R,Other (Wide Range)
A22565	Acetyl-Histone H3-K56 Rabbit mAb	ChIP-seq,ChIP,IHC-P,IF/ICC,WB,DB	H,M,R,Other (Wide Range)
A21223	MonoMethyl-Histone H3-K79 Rabbit mAb	ChIP-seq,ChIP,IHC-P,WB,DB	H,M,R,Other (Wide Range)
A22143	DiMethyl-Histone H3-K4 Rabbit mAb	ChIP-seq,ChIP,IF/ICC,WB,DB	H,M,R,Other (Wide Range)
A22086	DiMethyl-Histone H3-K79 Rabbit mAb	ChIP-seq,ChIP,IHC-P,IF/ICC,IP,WB,DB	H,M,R,Other (Wide Range)
A22142	DiMethyl-Histone H3-K79 Rabbit mAb	ChIP-seq,ChIP,DB,WB	H,M
A20379	TriMethyl-Histone H3-K36 Rabbit mAb	ChIP-seq,ChIP,IHC-P,IP,WB,DB	H,M,R,Other (Wide Range)
A22146	TriMethyl-Histone H3-K4 Rabbit mAb	ChIP-seq,CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB,DB	H,M,R,Other (Wide Range)
A22295	TriMethyl-Histone H3-K9 Rabbit mAb	ChIP,ChIP-seq,IF/ICC,WB,DB	H,M,R,Other (Wide Range)

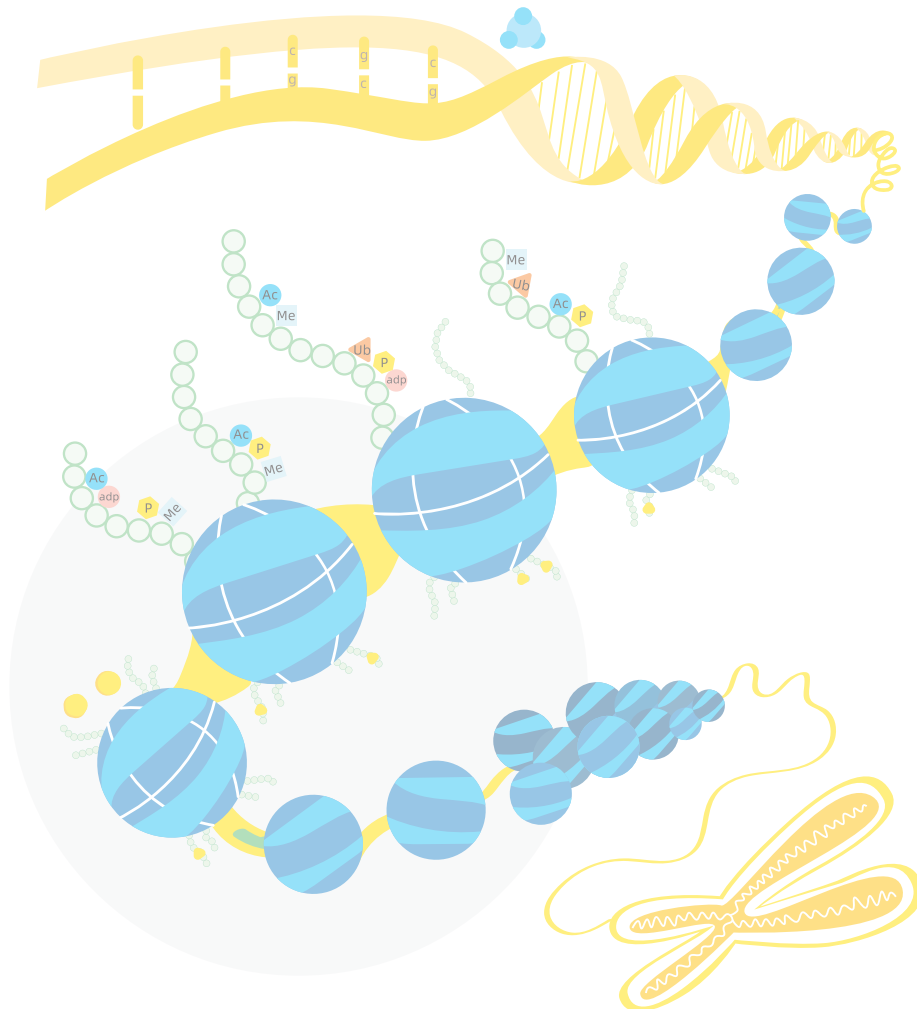
// ChIP-Seq Related Product List

Application	Cat.No.	Product Name	Description
DNA Purification	RK30100	AFTSpin Multifunction DNA Purification Kit	ChIP-DNA purification and recovery
ChIP-DNA-qPCR	RK21219	BrightCycle Universal SYBR Green qPCR Mix with UDG	Universal, with anti-fouling system, compatible with various models

Application	Cat.No.	Product Name	Description
Magnetic separation rack	AI20021P	1.5 mL (8-well) Magnetic Separation Device	Used for separation of magnetic microbeads and nucleic acid purification in experiments
	AI20022P	1.5 mL (16-well) Magnetic Separation Device	
	AI20023P	1.5 mL (24-well) Magnetic Separation Device	
ChIP-DNA- Library Preparation	RK20255	Rapid Plus DNA Lib Prep Kit for MGI V2	MGI Platform
	RK20256	Rapid Plus DNA Lib Prep Kit for Illumina V2	Illumina Platform
Related Products	RK20257	AFTMag NGS DNA Clean Beads	ChIP-DNA purification and selection

// Citations

Title	Journal	Impact factor	Cat.No.
Long noncoding RNA 2193 regulates meiosis through global epigenetic modification and cytoskeleton organization in pig oocytes	Journal of cellular physiology	6.513	TriMethyl-Histone H3-K36 Rabbit mAb (A20379)



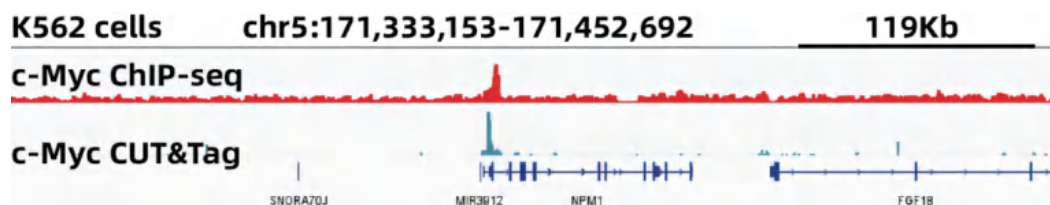
Chromatin Environment Research Techniques: CUT&Tag

ChIP-seq requires a larger amount of cell input (approximately 10^7 cells), and formaldehyde cross-linking can generate false positives. These issues make it challenging to study low-input, low-abundance target proteins, and weak DNA-protein interactions. In 2019, the team led by Steven Henikoff introduced a new technique called CUT&Tag (Cleavage Under Targets and Tagmentation) by using pA-Tn5 instead of pA-MNase. The principle of this technique involves the immobilization of cells on ConA beads coated with digoxigenin-labeled protein A, which binds to glycoproteins on the cell membrane. Then, digoxigenin-conjugated transposase (pA-Tn5) is used to precisely target the desired protein. The transposase fragments the DNA near the target protein while adding partial adapter sequences required for second-generation sequencing. After PCR amplification, a library suitable for sequencing can be obtained directly. Compared to ChIP-seq, CUT&Tag offers advantages such as lower cell input requirements (less than 100,000 cells, even single cells), simplified workflow (no cross-linking, sonication, or immunoprecipitation required), shorter experimental time, high signal-to-noise ratio, and good reproducibility. As a result, CUT&Tag has become a new choice for many researchers in the field of epigenetics.

// CUT&Tag Validated Antibodies

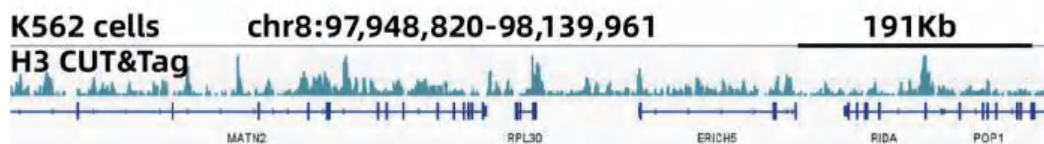
[KO Validated] c-Myc Rabbit mAb Cat.No.: A19032

Citations (6) Application: CUT&Tag, ChIP, WB Reactivity: H, M



Histone H3 Rabbit mAb Cat.No.: A22348

Application: CUT&Tag, ChIP, IF/ICC, IHC-P, IP, WB Reactivity: H, M, R, Oryza sativa, Other (Wide Range)



// CUT&Tag Validated Antibodies

Cat.No.	Product Name	Application	Reactivity
A11145	[KO Validated] CDK9 Rabbit mAb	CUT&Tag,ChIP-seq,ChIP,IHC-P,IF/ICC,IP,WB	H,M,R
A19032	[KO Validated] c-Myc Rabbit mAb	CUT&Tag,ChIP,WB	H,M
A19116	[KO Validated] Smad4 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IP,WB	H,M,R
A22650	[KO Validated] YAP1 Rabbit mAb	CUT&Tag,ChIP,IP,WB	H,M,R
A19588	CTCF Rabbit mAb	CUT&Tag,ChIP-seq,ChIP,IF/ICC,IP,WB	H,M,R
A9168	HMGB2 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB	H,M,R
A22348	Histone H3 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB	H,M,R,Oryza sativa
A21107	Acetyl-Histone H3-K9 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB,DB	H,M,R,Other (Wide Range)
A20735	Acetyl-Histone H3-K18 Rabbit mAb	CUT&Tag,ChIP-seq,ChIP,IHC-P,IP,WB,DB	H,M,R,Other (Wide Range)
A2771	Acetyl-Histone H3-K27 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB,DB	H,M,R,Other (Wide Range)
A22054	Acetyl-Histone H3-K4/K9/K14/K18/K23/K27 Rabbit mAb	CUT&Tag,ChIP-seq,ChIP,IHC-P,IP,WB	H,M,R,Other (Wide Range)
A22099	Acetyl-Histone H4-K5/K8/K12/K16 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB,DB	H,M,R
A22078	MonoMethyl-Histone H3-K4 Rabbit mAb	CUT&Tag,IHC-P,IF/ICC,DB,WB	H,M,R,Other (Wide Range)
A20734	MonoMethyl-Histone H3-K9 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB,DB	H,M,R,Other (Wide Range)
A20680	MonoMethyl-Histone H3-K18 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB,DB	H,M,R
A19645	MonoMethyl-Histone H3-R2 Rabbit mAb	CUT&Tag,ChIP,WB,DB	H,M,R,Other (Wide Range)
A22146	TriMethyl-Histone H3-K4 Rabbit mAb	CUT&Tag,ChIP-seq,ChIP,IHC-P,IF/ICC,IP,WB,DB	H,M,R,Other (Wide Range)
A22396	TriMethyl-Histone H3-K27 Rabbit mAb	CUT&Tag,ChIP,IHC-P,IF/ICC,IP,WB	H,M,R,Other (Wide Range)

// Citations

Title	Journal	Impact factor	Cat.No.
Breast cancer cell-derived extracellular vesicles promote CD8+T cell exhaustion via TGF- β type II receptor signaling - PMC	Nature communications	17.69	[KO Validated] Smad4 Rabbit mAb (A19116)
TDP43 promotes stemness of breast cancer stem cells through CD44 variant splicing isoforms	Cell death & disease	9.685	[KO Validated] c-Myc Rabbit mAb (A19032)

Tools for Post-Transcriptional Gene Regulation Research

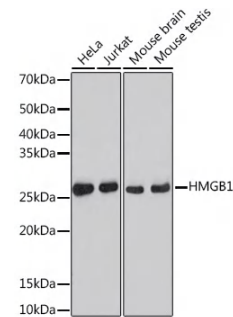
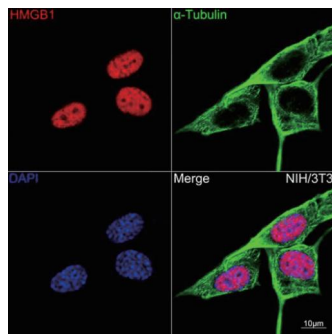
RNA-Protein Complex Research

There are two common research methods for studying RNA-protein complexes:

- **RNA pull-down:** This method involves capturing and enriching RNA molecules bound to specific RNA-binding proteins (RBPs) using antibodies against the RBPs. The captured RNA is then identified and analyzed using sequencing or RT-qPCR methods.
- ***In vitro* transcription:** In this method, biotin-labeled RNA is generated through *In vitro* transcription and incubated with protein extracts to form RNA-protein complexes *In vitro*. The RNA-protein complexes are then captured and enriched using magnetic beads labeled with streptavidin. After elution, the associated RNA-binding proteins (RBPs) can be identified or analyzed using mass spectrometry or Western blotting.

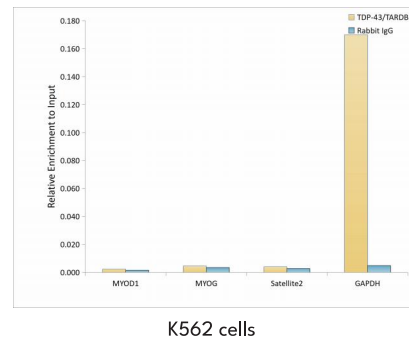
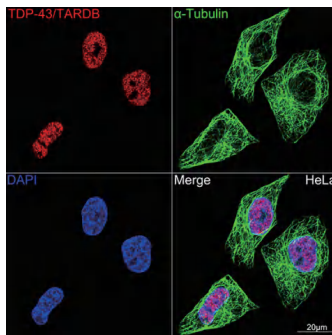
[KO Validated] HMGB1 Rabbit mAb Cat.No.: A19529

Citations (7) Application: IHC-P, IF/ICC, WB Reactivity: H, M, R



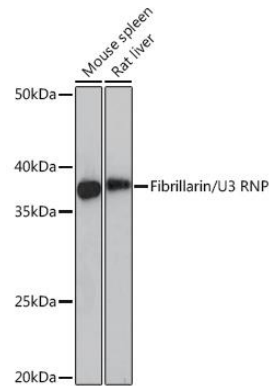
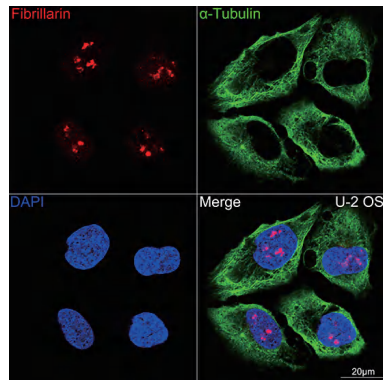
TDP-43/TARDB Rabbit mAb Cat.No.: A19123

Application: CHIP, IHC-P, IF/ICC, WB Reactivity: H, M, R



Fibrillarin/U3 RNP Rabbit mAb Cat.No. : A0850

Citations (8) Application: IF/ICC, WB Reactivity: H, M, R



// RNA-Binding Protein Antibodies

Cat.No.	Product Name	Application	Reactivity
A20986	[KD Validated] Calreticulin Rabbit mAb	IHC-P,WB	H,M,R
A19586	[KD Validated] NQO1 Rabbit mAb	IF/ICC,WB	H,M,R
A21182	[KO Validated] Fatty Acid Synthase (FASN) Rabbit mAb	IF/ICC,WB	H,M,R
A19529	[KO Validated] HMGB1 Rabbit mAb	IHC-P,IF/ICC,WB	H,M,R
A19622	[KO Validated] HuR/ELAVL1 Rabbit mAb	IHC-P,IF/ICC,IP,WB	H,M,R
A19121	[KO Validated] SUMO1 Rabbit mAb	IHC-P,IF/ICC,WB	H,M,R
A11466	ADAR1 Rabbit mAb	IHC-P,WB	H,M,R
A11235	Annexin A2 Rabbit mAb	IHC-P,WB	H,M,R
A19709	Argonaute-2 Rabbit mAb	IHC-P,WB	H,M,R
A11217	ATP5A1 Rabbit mAb	IHC-P,IF/ICC,IP,WB	H,M,R
A11563	Calreticulin Rabbit mAb	IHC-P,IP,WB	H,M,R
A19778	Cytokeratin 18 (KRT18) Rabbit mAb	IHC-P,IF/ICC,WB	H,M,R
A11339	DDX5 Rabbit mAb	IHC-P,IF/ICC,IP,WB	H,M,R
A9634	DDX6 Rabbit mAb	IF/ICC,WB	H,M,R
A4563	DHX9/RNA Helicase A Rabbit mAb	IHC-P,IF/ICC,IP,WB	H,M,R
A21221	eIF2α Rabbit mAb	IF/ICC,WB	H,M,R
A8985	eIF4A3 Rabbit mAb	IF/ICC,WB	H,M,R
A9640	EWSR1 Rabbit mAb	IHC-P,IF/ICC,WB	H,M,R

Cat.No.	Product Name	Application	Reactivity
A0850	Fibrillarin/U3 RNP Rabbit mAb	IF/ICC,WB	H,M,R
A4539	FMRP Rabbit mAb	IHC-P,IP,WB	H,M,R
A19109	FSP1/S100A4 Rabbit mAb	IHC-P,IF/ICC,WB	H,M,R
A3968	G3BP1 Rabbit mAb	IF/ICC,IP,WB	H,M,R
A11198	Galectin 3/LGALS3 Rabbit mAb	IHC-P,IP,WB	H,M,R
A9168	HMGB2 Rabbit mAb	ChIP,CUT&Tag,IHC-P,IF/ICC,IP,WB	H,M,R
A11564	hnRNP A1 Rabbit mAb	IHC-P,IF/ICC,IP,WB	H,M,R
A11156	HSP27/HSPB1 Rabbit mAb	IF/ICC,WB	H,M,R
A0564	HSP60/HSPD1 Rabbit mAb	IHC-P,IF/ICC,WB	H,M,R
A19574	Hsp90 β Rabbit mAb	IF/ICC,WB	H,M,R
A8186	ILF3 Rabbit mAb	IHC-P,WB	H,M,R
A11223	Ku70 Rabbit mAb	IHC-P,IF/ICC,WB	H,M,R
A19286	NAT10 Rabbit mAb	IHC-P,WB	H,M,R
A3800	NONO/p54nrb Rabbit mAb	IHC-P,IF/ICC,WB	H,M,R
A19239	P4HB Rabbit mAb	IHC-P,WB	H,M,R
A19596	PARP1 Rabbit mAb	IHC-P,WB	H,M,R
A3487	PTBP1 Rabbit mAb	IHC-P,IF/ICC,IP,WB	H,M,R
A11874	S6 Ribosomal Protein (RPS6) Rabbit mAb	IF/ICC,WB	H,M,R
A4091	SRSF1/SF2/ASF Rabbit mAb	IHC-P,WB	H,M,R
A0036	STIP1 Rabbit mAb	IHC-P,WB	H,M,R
A19123	TDP-43/TARDB Rabbit mAb	ChIP,IHC-P,IF/ICC,WB	H,M,R
A3173	TFAM Rabbit mAb	IHC-P,WB	H,M,R
A4396	UBE2L Rabbit mAb	IHC-P,WB	H,M,R
A5071	UPF1/RENT1 Rabbit mAb	IF/ICC,IP,WB	H,M,R

// Tools for RNA-Protein Complex Research

Category	Cat.No.	Product Name	Application
RNA-binding protein	RK01251	Human Decorin ELISA Kit (DCN)	ELISA
RNA-binding protein	RK04581	Human STIP1 / Stress-induced-phosphoprotein 1 ELISA Kit	ELISA
RNA-binding protein	RK00144	Human Thioredoxin-1/Trx1 ELISA Kit	ELISA

// Citations

Title	Journal	Impact factor	Cat.No.
Dhx33 promotes B-cell growth and proliferation by controlling activation-induced rRNA upregulation	Cellular & molecular immunology	22.09	Fibrillarin/U3 RNP Rabbit mAb (A0850)
Peptide Supramolecular Assembly-Instructed In Situ Self-Aggregation for Stratified Targeting Sonodynamic Therapy Enhancement of AIE Luminogens	Advanced science	17.52	[KO Validated] HMGB1 Rabbit mAb (A19529)
Cytoplasmic SHMT2 drives the progression and metastasis of colorectal cancer by inhibiting β -catenin degradation	Theranostics	11.6	ATP5A1 Rabbit mAb (A11217)

RNA Modification

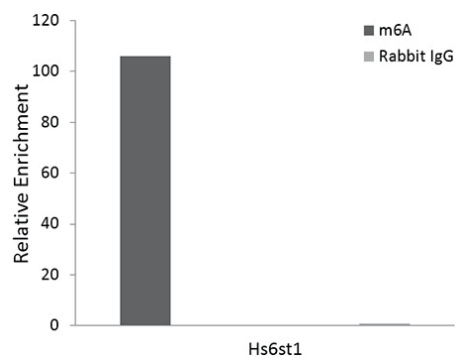
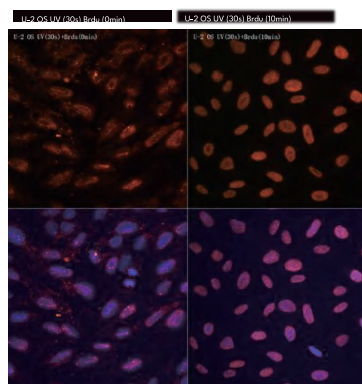
The modifications of RNA have diverse impacts on its localization, activity, functionality, and stability. Investigating the dynamic changes in RNA modifications under different physiological and pathological conditions helps us gain a deeper understanding of the roles and regulatory mechanisms of specific RNAs. Currently, RNA methylation is a research hotspot, and the most common internal modifications of RNA include N6-adenosine methylation (m6A), N1-adenosine methylation (m1A), and cytosine hydroxymethylation (m5C). Among them, N6-methyladenosine (m6A) has been extensively studied and demonstrated to play a crucial role in gene regulation, stem cell differentiation, cancer cell proliferation, tissue growth, and development processes.

N6-methyladenosine / m6A Rabbit mAb Cat.No. : A19841

Citations (7)

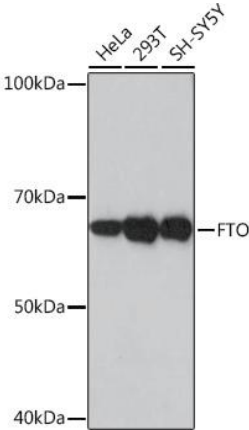
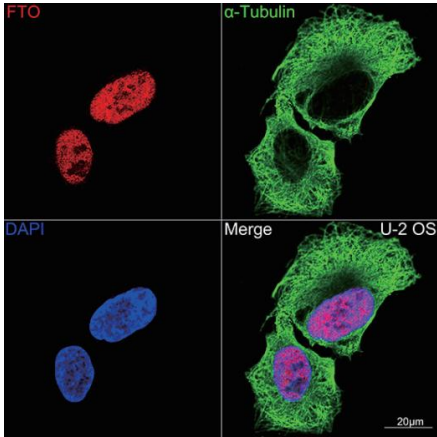
Application: meRIP, IF/ICC, Nucleotide Array, DB

Reactivity: Species independent



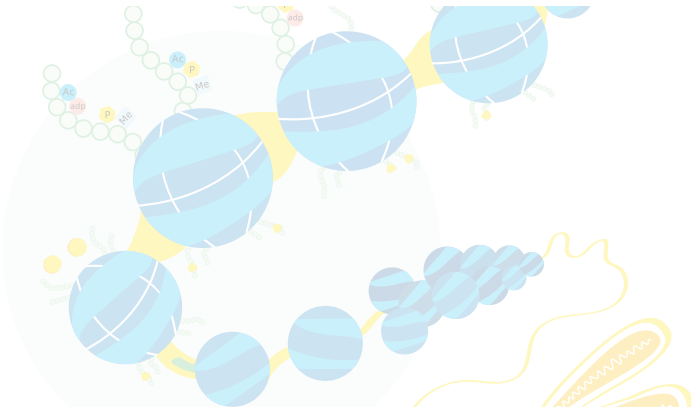
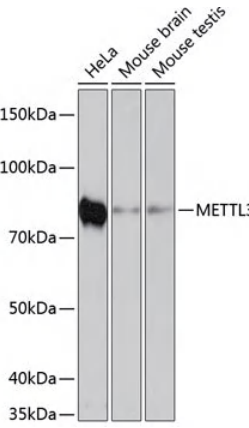
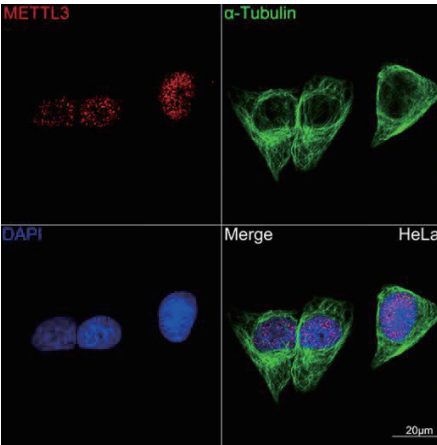
FTO Rabbit mAb Cat.No.: A3861

Citation (3) Application: IHC-P, IF/ICC, IP, WB Reactivity: H



METTL3 Rabbit mAb Cat.No.: A19079

Citation (2) Application: IF/ICC, WB Reactivity: H, M



// RNA Modification Antibodies

Category	Cat.No.	Product Name	Application	Reactivity
RNA Modification	A19841	N6-methyladenosine / m6A Rabbit mAb	Nucleotide Array,DB,meRIP,IF/ICC	Species independent
	A22411	N6-methyladenosine / m6A Rabbit mAb	Nucleotide Array,DB,meRIP,IF/ICC	Species independent
Writer	A19079	METTL3 Rabbit mAb	IF/ICC,WB	H,M
	A22751	WTAP Rabbit mAb	IHC-P,IF/ICC,WB	H,M,R
Eraser	A22137	ALKBH5 Rabbit mAb	IHC-P,WB	H,M,R
	A20992	[KO Validated] FTO Rabbit mAb	IHC-P,WB	H,M,R
	A3861	FTO Rabbit mAb	IHC-P,IF/ICC,IP,WB	H
Reader	A3431	eIF3e Rabbit mAb	IHC-P,WB	H,M,R
	A9143	eIF3B Rabbit mAb	IF/ICC,WB	H,M,R
	A4539	FMRP Rabbit mAb	IHC-P,IP,WB	H,M,R
	A8958	hnRNP C Rabbit mAb	IF/ICC,WB	H,M
	A19276	hnRNP E1/PCBP1 Rabbit mAb	WB	H,M,R
	A22141	hnRNP E1/PCBP1 Rabbit mAb	WB	H,M
	A21119	hnRNP E2/PCBP2 Rabbit mAb	IP,WB	H,M,R
	A22612	IGF2BP1/IMP1 Rabbit mAb	IF/ICC,WB	H,M,R
	A22246	[KO Validated] IGF2BP1/IMP1 Rabbit pAb	WB	H,M,R
	A5189	IGF2BP2/IMP2 Rabbit mAb	IHC-P,IP,WB	H
	A23295	IGF2BP3/IMP3 Rabbit mAb	IHC-P,IP,WB	H,M,R
	A23773	YTHDF1 Rabbit mAb	IP,WB	H,M,R

// Citations

Title	Journal	Impact factor	Cat.No.
KIAA1429 promotes tumorigenesis and gefitinib resistance in lung adenocarcinoma by activating the JNK/MAPK pathway in an m6A-dependent manner	Drug Resist Updat	22.84	N6-methyladenosine / m6A Rabbit mAb (A19841)
ALKBH5 facilitates hypoxia-induced paraspeckle assembly and IL8 secretion to generate an immunosuppressive tumor microenvironment	Cancer research	13.31	METTL3 Rabbit mAb (A19079)

RNA Expression Profiling Analysis

Transcriptomics is an essential approach for identifying and analyzing the expression of specific functional RNA molecules. It encompasses a range of techniques, from basic RNA expression analysis to transcriptome sequencing, requiring different library preparation methods.

// Product List

Category	Cat.No.	Product Name	Description
Poly(A)RNA Capture	RK20340	Poly(A) mRNA Capture Module	Applicable to separating poly(A) RNA from total RNA
rRNA Depletion module	RK20348	rRNA Depletion module (H/M/R)	Applicable to human, mouse, rat total RNA and degraded RNA samples
Classic RNA Library Preparation	RK20350	mRNA-seq Lib Prep Module for Illumina	Applicable to Illumina Platform
Small RNA Library Preparation	RK20307	Small RNA Lib Prep Kit for Illumina V2	Applicable to Illumina Platform
First Strand Synthesis	RK20353	First Strand Synthesis Module	Non-strand-specific
Second Strand Synthesis	RK20346	Second Strand Synthesis Module	Non-strand-specific

// Citations

Title	Journal	Impact factor	Cat.No.
TDP43 promotes stemness of breast cancer stem cells through CD44 variant splicing isoforms	Cell death & disease	9.685	[KO Validated] c-Myc Rabbit mAb (A19032)
Breast cancer cell-derived extracellular vesicles promote CD8+T cell exhaustion via TGF- β type II receptor signaling - PMC	Nature communications	17.69	[KO Validated] Smad4 Rabbit mAb (A19116)
An integrated multi-omics approach revealed the regulation of melatonin on age-dependent mitochondrial function impair and lipid dyshomeostasis in mice hippocampus	Pharmacological research	10.33	First Strand Synthesis Module(RK20353)
Copy number variation-associated lncRNAs may contribute to the etiologies of congenital heart disease - PMC	Communications biology	6.54	mRNA-seq Lib Prep Module for Illumina(RK20350)



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