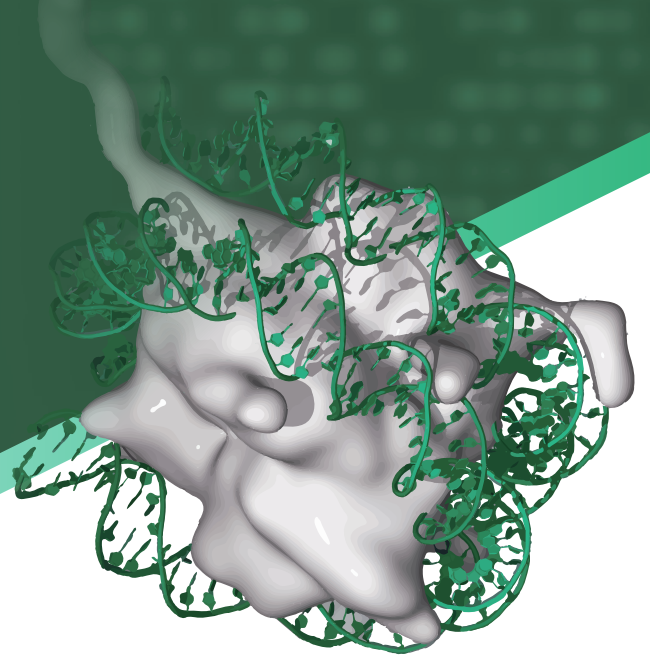


EPIGENETIC ENZYMES

Mini-Catalog

EPIGENETIC ENZYMES



Signaling You To The Right Path

SignalChem Biotech Inc. is a Canadian company focused on the research, development, and production of innovative and high-quality human recombinant cell signaling products. SignalChem strives to support scientists in academia, pharma, and biotech companies around the world by creating over 500 fully functional and biologically active protein kinases and variants to expedite research focused around this family of enzymes, and aid drug discovery projects aimed to treat fatal human ailments such as cancer, neurodegeneration and autoimmune diseases.



What We Are Good At

Our scientists manufacture active enzymes and novel assays following strict QC/QA standards using our state-of-the-art manufacturing facility.

In House Manufacturing

Superior Quality

Highly Trained Team

EPIGENETIC ENZYMES

Epigenetic Enzymes

Epigenetic enzymes are crucial in maintaining key cellular functions by modifying chromatin structures and controlling gene transcription processes. These reversible epigenetic DNA and histone modifications are controlled by important enzymes such as methyltransferases and acetyltransferases. Dysregulation of these enzymes has been observed in myriad human diseases such as cancer. In recent years, epigenetic enzymes have emerged as some of the most promising classes of targets for drug discovery projects and development projects.

Scientists at SignalChem have developed a full range of epigenetic enzymes including Histone Deacetylases, Acetyl & Methyltransferases, and Deacetylase & Demethylase Proteins. Our high-quality recombinant epigenetic enzymes and corresponding assay methods are valuable tools. SignalChem is paving the way for the next generation epigenetic basic research and drug discovery targets in this growing field.

Histone Deacetylases

Histone deacetylases (HDACs) are a part of a vast family of epigenetic enzymes playing a crucial role in the gene silencing; thus, controlling gene expression. Members of HDACs are important cellular tools in the maintenance of chromatin architecture and gene transcription. HDACs remove the acetyl ($O=C-CH_3$) group from an ϵ -N-acetyl lysine residue on a histone. This allows the DNA to wrap around histones more tightly, thereby impeding the gene expression process. HDACs play a key role in cellular processes such as cell proliferation, cell cycle regulation, apoptosis, and cell differentiation. Altered expression or mutation in the members of HDACs have been observed in many human diseases such as cancer, inflammation, neuropsychiatry, skeletogenesis, cardiovascular growth and more. SignalChem offers a diverse and comprehensive range of active HDACs to facilitate in vitro studies on epigenetic mechanisms and related human diseases. Our active HDACs and sirtuins have been validated using Promega's HDAC-GloTM and SIRT-GloTM technology respectively.

Features

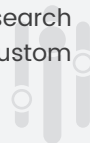
Comprehensive HDAC & SIRT collection

SignalChem's extensive HDAC and SIRT portfolio for research in epigenetics.



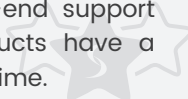
Fully Customizable

All SignalChem products are fully customizable and can be tailored to suit your research needs. We also provide Custom services.








Quality, Support, Trust, & Speed

All SignalChem products are QA/QC certified. Our customers trust us with long term and complete end-to-end support and all our products have a quick turnaround time.



Products


Legends:  Most Cited  Frequently Cited

Name	Catalog #	Species	Tag	Sequence	Genbank No.
HDAC1, Active 	H83-30G	Human	GST	Full Length	NM_004964
HDAC2, Active 	H84-30G	Human	GST	Full Length	NM_001527
HDAC3, Active	H85-30G	Human	GST	Full Length	NM_003883
HDAC3/NCOR2, Active 	H85-38G	Human	GST	HDAC3 (full-length)/ NCOR2 (237-489)	NM_003883
HDAC4, Active	H86-31G	Human	GST	612-end	NM_006037
HDAC4, Active	H86-31BG	Human	GST	101-end	NM_006037
HDAC5, Active	H87-31G	Mouse	GST	617-end	BC060609
HDAC6, Active 	H88-30G	Human	GST	Full Length	BC069243
HDAC6, Active	H88M-30G	Mouse	GST	Full Length	Q9Z2V5
HDAC6, Active	H88A-30G	Rat	GST	Full Length	A0A0G2QC41
HDAC6, Active	H88D-30G	Dog	GST	Full Length	FIPN11
HDAC6, Active	H88C-30G	Macaca fascicularis	GST	Full Length	A0A2K5VKA4
HDAC7, Active	H89-31G	Human	GST	501-end	NM_015401
HDAC8, Active	H90-30H	Human	HIS	Full Length	BC050433
HDAC8, Active	H90-30G	Human	GST	Full Length	BC050433
HDAC9, Active	H91-31G	Human	GST	548-end	NM_058176
HDAC10, Active 	H92-31G	Human	GST	1-482	NM_032019
HDAC11, Active	H93-30G	Human	GST	Full Length	NM_024827
HDAC11, Active	H93D-30G	Dog	GST	Full Length	FIPS19
HDAC11, Active	H93C-30G	Macaca fascicularis	GST	Full Length	Q9GKU5
HDAC11, Active	H93M-30G	Mouse	GST	Full Length	Q91WA3
HDAC11, Active	H93A-30G	Rat	GST	Full Length	B2GUW3

SIRT

Legends:  Most Cited  Frequently Cited

Operating on NAD, Sirtuins are deacetylases that are evolutionary conserved across species. Originating from the gene Sir2 (the silent mating-type information regulator 2) in yeast, which has a role in preserving silent chromatin, Sirtuins have expanded in mammals to encompass seven variations (SIRT1 to 7). These belong to the class III histone deacetylase (HDAC) protein family and uniquely require NAD for their enzymatic functions. Given their involvement in metabolic disorders, neural functionality, and aging processes, Sirtuins have become a significant focus in scientific research.

Name	Catalog #	Species	Tag	Sequence	Genbank No.
SIRT1, Active	S35-3IH	Human	HIS	193-end	NM_012238
SIRT1, Active	S35-3IG	Human	GST	193-end	NM_012238
SIRT2, Active	S36-30H	Human	HIS	Full Length	NM_030593
SIRT3, Active	S37-38G	Human	GST	47-end	NM_012239
SIRT5, Active	S39-30H	Human	HIS	Full Length	NM_012241
SIRT6, Active	S40-3IH	Human	HIS	23-end	NM_016539
SIRT7, Active 	S41-30H	Human	HIS	Full Length	NM_016538

Acetyl and Methyltransferases

With diverse targets, including proteins, DNA, and small molecules, Acetyl and Methyltransferases help orchestrate intricate biological processes, from gene expression to signal transduction. Acetyltransferases are primarily responsible for protein acetylation and contribute to the modulation of protein function and cellular processes. Methyltransferases, on the other hand, are central to methylation - a crucial post-translational modification influencing gene expression. Their crucial roles in epigenetic regulation, cellular homeostasis, and human diseases make Acetyltransferases and Methyltransferases valuable subjects in scientific research, promising breakthroughs in understanding disease mechanisms and developing targeted therapeutics.

Features

Broad Applications

Our Acetyltransferases and Methyltransferases cover a wide range of substrates, making them applicable to diverse research areas including epigenetic regulation, cellular signaling, and disease mechanism exploration. These versatile enzymes can be used in a variety of experimental contexts, enhancing their utility and versatility.



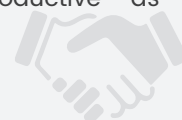
High Quality and Purity

We ensure stringent quality control measures for our Acetyltransferases and Methyltransferases, delivering the purest enzymes to facilitate accurate and reliable research outcomes. Each product undergoes rigorous testing to confirm its activity, purity, and stability.



End-to-end support

In addition to providing top-tier enzymes, we offer comprehensive product support. Our knowledgeable team is ready to assist you in choosing the right enzymes for your research, providing application guidance, and troubleshooting, ensuring your research is as seamless and productive as possible.



Products

Legends:  Most Cited  Frequently Cited

Name	Catalog #	Species	Tag	Sequence	Genbank No.
ASH2L Protein	A372-30BG	Human	GST	Full Length	BC015936
COMT, Active	C339-381G	Human	GST	27-271	NM_000754
DNMT1 Protein	D351-31G	Mouse	GST	766-end	BC053047
DNMT3A, Active	D353-380G	Human	GST	Full Length	BC043617
DNMT3B, Active	D353-380BG	Human	GST	Full Length	BC111933
DNMT3L, Active	D353-380CG	Human	GST	Full Length	BC002560
DOTIL (KMT4), Active	D344-381G	Human	GST	1-435	NM_032482
DPY30 Protein	D369-30H	Human	HIS	Full Length	NM_032574
EED Protein	E310-30H	Human	HIS	Full Length	BC068995
EHMT1 (KMTID), Active	E317-381G	Human	GST	895-end	NM_024757
EHMT2, Active	E318-381G	Human	GST	807-end	NM_006709
EZH1 Protein	E395-30G	Human	GST	Full Length	BC015882
EZH2 (Y641C) Protein	E396-32BG	Human	GST	Full Length	BC010858
EZH2 (Y641H) Protein	E396-32DG	Human	GST	Full Length	BC010858
EZH2 (Y641N) Protein	E396-32EG	Human	GST	Full-Length	BC010858
EZH2 (Y641S) Protein	E396-32FG	Human	GST	Full-Length	BC010858
EZH2 Protein	E396-30G	Human	GST	Full Length	BC010858
HEMK1 Protein	H311-30G	Human	GST	Full-Length	NM_016173
KAT2A (GCN5), Active	K311-381G	Human	GST	323-end	NM_021078
KAT2B (PCAF), Active	K311-381BG	Human	GST	431-end	NM_003884
KAT3A (CREBBP) Protein	K312-31G	Human	GST	518-1207	NM_004380
KAT3A (CREBBP), Active	K312-381G	Human	GST	1319-1710	NM_004380
KAT3B (EP300) Protein	K312-31BG	Human	GST	532-1153; contains the catalytic domain	NM_001429
KAT5 (TIP60), Active	K314-380G	Human	GST	Full Length	NM_006388
KAT6B (MYST4), Active	K315-381BG	Human	GST	431-end	NM_012330
KAT7 (K277Q), Active	K316-382AG	Human	GST	Full Length	NM_007067
KAT7 (K277R), Active	K316-382BG	Human	GST	Full Length	NM_007067
KAT7 (MYST2), Active	K316-380G	Human	GST	Full Length	NM_007067

Name	Catalog #	Species	Tag	Sequence	Genbank No.
KAT8 (MYST1) Protein ★	K317-31G	Human	GST	2-467	BC037773
KAT9 (ELP3) Protein	K318-30G	Human	GST	Full Length	NM_018091
LCMT1, Active	L321-380G	Human	GST	Full Length	NM_016309
LCMT2 Protein	L322-30G	Human	GST	Full Length	NM_014793
MEP50 (WDR77) Protein	W329-30G	Human	GST	Full Length	BC001679
METTL1 Protein	M321-30G	Human	GST	Full Length	NM_005371
METTL1IA Protein	M331-30G	Human	GST	Full Length	BC001396
METTL12, Active	M332-30G	Human	GST	Full Length	NM_001043229
METTL14 Protein	M334-30G	Human	GST	Full Length	NM_020961
METTL16, Active	M336-380G	Human	GST	Full Length	NM_024086
METTL2A Protein	M322-30G	Human	GST	Full Length	NM_181725
METTL3 Protein	M323-30G	Human	GST	Full Length	NM_019852
METTL3/METTL14, Active	M323-380G	Human	GST	Full Length	NM_019852
MGMT Protein	M354-30H	Human	HIS	Full Length	BC000824
MLL1 (KMT2A), Active	M341-381G	Human	GST	3738-end	NM_005933
MLL2 (KMT2D), Active ★	M342-381G	Human	GST	5317-end	NM_003482
MLL3 (KMT2C), Active	M343-381G	Human	GST	4689-end	NM_170606
MLL5 (KMT2E), Active	M345-381G	Human	GST	1-548	NM_182931
N6AMT2, Active	N355-380BH	Human	HIS	Full Length	NM_174928
NNMT (Dog), Active	N330D-380G	Canis lupus	GST	Full Length	XM_546514
NNMT, Active	N330-380G	Human	GST	Full Length	NM_006169
PCAF Protein	P09-31G	Human	GST	431-end	NM_003884
PCMT1 Protein	P314-30G	Human	GST	2-end	BC007501
PNMT, Active	P331-380G	Human	GST	Full Length	NM_002686
PNMT (Isoform 1), Active	P331D-301G	Dog	GST	Full Length	XM_548143
PRDM2 (KMT8) Protein	P333-31G	Human	GST	1-340	NM_012231
PRMT1, Active ★	P365-380G	Human	GST	Full Length	Q99873-3
PRMT2 Protein	P365-30BG	Human	GST	Full Length	BC000727

Name	Catalog #	Species	Tag	Sequence	Genbank No.
PRMT3, Active	P365-380CG	Human	GST	Full Length	BC064831
PRMT4, Active ★	P365-380DG	Human	GST	Full Length	NM_199141
PRMT5 Protein ★	P365-30EG	Human	GST	Full Length	NM_006109
PRMT5/MEP50, Active	P329-310EG	Human	GST	Full Length	NM_006109, BC001679
PRMT6, Active	P365-380FG	Human	GST	Full Length	NM_018137
PRMT7 Protein	P365-30GG	Human	GST	Full Length	BC000146
PRMT8, Active	P365-380HG	Human	GST	Full Length	BC022458
RBBP5 Protein	R315-30H	Human	HIS	Full Length	NM_005057
SETD1A (KMT2F), Active	S342-381G	Human	GST	1418-end	NM_014712
SETD2 (KMT3A), Active	S343-381G	Human	GST	1425-1717	NM_014159
SETD4 Protein	S353-30G	Human	GST	Full Length	BC002898
SETD6, Active	S355-380G	Human	GST	Full Length	NM_001160305
SETD7, Active	S344-380G	Human	GST	Full Length	NM_030648
SETD8 Protein	S345-30G	Human	GST	Full Length	BC050346
SETDB1 (KMT1E) Protein	S346-31G	Human	GST	715-end	BC028671
SETDB2 Protein	S346-30BG	Human	GST	Full Length	BC047434
SETMAR Protein	S347-30G	Human	GST	Full Length	BC011635
SMYD2 (KMT3C), Active	S348-380BG	Human	GST	Full Length	BC049367
SMYD3, Active	S348-380CG	Human	GST	Full Length	BC031010
SUV39H1 (KMT1A), Active ★	S350-380G	Human	GST	Full Length	NM_003173
SUV39H2 (KMT1B), Active	S350-380BG	Human	GST	Full Length	BC007754
SUV420H1 (KMT5B), Active	S351-380G	Human	GST	Full Length	BC103498
TRDMT1 (DNMT2) Protein	T352-30G	Human	GST	Full Length	BC047733
WDR5 Protein	W325-30H	Human	HIS	Full Length	BC001635
WHSC1 (NSD2), Active	N377-381G	Human	GST	911-end	NM_133330
WHSC1LI (NSD3) Protein	N378-31G	Human	GST	1038-end	BC113469
WTAP Protein	W369-30G	Human	GST	Full Length	NM_004906

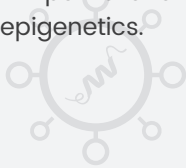
Deacetylase & Demethylase Proteins

Deacetylase and Demethylase proteins serve as crucial regulatory enzymes that command the removal of acetyl and methyl groups from an array of substrates, including proteins and DNA. These dynamic enzymes play a key role in biological processes, contributing significantly to epigenetic regulation. Deacetylases are chiefly engaged in protein deacetylation, altering protein function and impacting various cellular mechanisms. Conversely, demethylases are involved in demethylation, a pivotal post-translational modification that influences gene expression. Their instrumental roles in biological pathways, cellular balance, and the progression of human diseases have rendered Deacetylase and Demethylase proteins highly significant in scientific research. They hold the potential to provide insightful understanding of disease pathways and pave the way for novel therapeutic strategies.

Features

Diverse selection

SignalChem's extensive HDAC and SIRT portfolio for research in epigenetics.



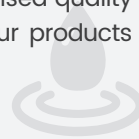
Research Optimised

All SignalChem products are fully customizable and can be tailored to suit your research needs.



High purity & stability

Our rigorous purification process guarantees that each protein, whether it's PPME1 or SIRT4, maintains its purity and stability. This uncompromised quality ensures you can confidently rely on our products for your high-stakes research.



Products

Legends: Most Cited Frequently Cited

Name	Catalog #	Species	Tag	Sequence	Genbank No.
JMJD6 Protein	J453-30G	Human	GST	Full Length	BC066654
KDM1A Protein	K421-31G	Human	GST	172-end	BC048134
KDM1B Protein	K421-30BG	Mouse	GST	Full Length	NM_172262
KDM2A Protein	K422-31G	Human	GST	1-748	NM_012308
KDM2B Protein	K422-30BG	Human	GST	Full Length	BC115380
KDM4A Protein	K424-31G	Human	GST	1-886	BC002558
KDM4B Protein	K424-31BG	Mouse	GST	1-725	NM_172132.2
KDM4C Protein	K424-31CG	Human	GST	1-460	BC104861
KDM5B Protein	K425-31BG	Mouse	GST	1-753	BC057318
KDM5C Protein	K425-31CG	Human	GST	1-671	BC054499
PPME1 Protein	P332-30G	Human	GST	2-end	BC003046
SIRT1 Protein	S35-31EG	Human	GST	193-end	NM_012238
SIRT2 Protein	S36-30EG	Human	GST	Full Length	NM_030593
SIRT3 Protein	S37-30EG	Human	GST	Full Length	NM_012239
SIRT4 Protein	S38-30EG	Human	GST	Full Length	NM_012240
SIRT5 Protein	S39-30EG	Human	GST	Full Length	NM_012241
SIRT6 Protein	S40-30EG	Human	GST	Full Length	NM_016539

Others

Name	Catalog #	Species	Tag	Sequence	Genbank No.
BRD2 (BD2), Active	B16-31H	Human	HIS	339-459	NM_005104
BRD4 (BD1), Active	B18-31H	Human	HIS	49-170	NM_014299
BRD4 (BD2), Active	B18-38H	Human	HIS	342-460	NM_014299
BRD4 (BD1+BD2), Active	B18-318H	Human	HIS	49-460	NM_014299

SignalChem and Sino Biological

Dear Valued Customers,

Sino Biological, Inc has successfully concluded the acquisition of Vancouver-based Canadian biotechnology company SignalChem Biotech Inc. (“SCB” or “SignalChem”). Sino Biological remains committed to maintaining high standards of quality, reliability, and customer satisfaction throughout the integration process. Customers can expect continued access to the same high-quality products and services you have come to rely on, backed by the combined expertise and resources of Sino Biological and SignalChem Biotech. You can discover SignalChem's full product range available for purchase via Sino Biological. We're committed to providing you with a broader range of quality solutions and are here to assist with any inquiries or orders related to these new offerings.



To order, please contact us at:

order_us@sinobiologicalus.com

Thank you for your continued support.

Sino Biological, Inc.

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