Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Саранск (8342)22-96-24
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

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www.sigmaaldrich.nt-rt.ru | | scx@nt-rt.ru

Технические характеристики на материалы для эпигинетики и микробиома компании Sigma-Aldrich

Виды товаров: материалы для модификации гистонов, материалы для метилирования ДНК, наборы для иммунопреципитации хроматина (ЧИП), наборы для иммунопреципитации РНК-связывающего белка (RIP), микробные среды, стандарты микробиома, антитела для исследования микробиома, ферменты без ДНК для исследования микробиома, наборы для очистки ДНК микробиома и др.

Epigenetics

Epigenetics describes changes that are stable, but potentially reversible alterations in gene expression, that occur without permanent changes in DNA sequence and can still be passed on from generation to generation. Epigenetically controlled genes are activated or repressed without any change in DNA. Three central epigenetic mechanisms that play an essential role in gene regulation have been extensively studied by researches, including DNA methylation, histone modification, and RNA regulation. Our combined comprehensive epigenetics portfolio offers high quality products to perform the techniques used to study all the three central epigenetic mechanisms.

HISTONE MODIFICATION

Chromatin is the complex of genomic DNA and associated proteins in the nucleus. Modifications to chromatin structure and the interplay of chromatin proteins play a direct role in epigenetic regulation. The structure of chromatin is facilitated by histones, a major class of chromatin proteins. Histones form the nucleosome, a complex containing 2 subunits each of histones H2A, H2B, H3 and H4. On the outside of the core complex, linker histone H1 occupies the internucleosomal DNA. This nucleosome complex maintains the compacted structure of chromatin. Site-specific histone modifications, such as methylation, acetylation, phosphorylation, ubiquitination, and citrullination, can alter local chromatin structure and regulate transcription, repair, recombination, and replication. Non-histone proteins associated with chromatin are a diverse group with thousands of different protein types, including transcription factors, polymerases, hormone receptors and other nuclear enzymes.

DNA METHYLATION

DNA methylation is an important epigenetic mechanism regulating gene silencing, imprinting, embryonic development, and chromosome stability. DNA methylation occurs on the 5-carbon position of cytosine residues mainly within CpG dinucleotides to form 5-methylcytosines (5-mC). The reaction is catalyzed by DNA methyltransferases (DNMTs). 5-methylcytosines residues may also be hydroxylated by TET enzymes to form 5-

hydroxymethylcytosine (5-hmC), which has differing roles from 5-mC. We provide robust tools that enable you to not only detect and quantify 5-mC and 5-hmC, but also to accurately distinguish between these modifications.

CHROMATIN IMMUNOPRECIPITATION (CHIP) KITS

Quantitative detection of histone modifications is important to a better understanding of epigenetic regulation of cellular processes in normal or cancer tissues. The most widely used techniques to study how histone modifications and other DNA binding proteins, such as transcription factors, influence gene expression is called chromatin immunoprecipitation (ChIP) combined with qualitative polymerase chain reaction (qPCR). ChIP involves chemically crosslinking proteins to DNA sequences, which is followed by immunoprecipitation of the crosslinked complexes by using antibodies and beads to pull down the modified histone or other proteins of interest. The most commonly studied and best understood histone modifications are acetylation, phosphorylation, methylation, and ubiquitination. Histone modifications regulate DNA transcription, repair, recombination, and replication, and can alter local chromatin architecture. Explore our wide range of kits for analyzing complex histone modifications patterns.

TRANSCRIPTIONAL AND POST-TRANSCRIPTIONAL CONTROL: RNA REGULATION

Traditionally, gene expression research has focused on transcriptional regulation through the interactions of transcription factors with specific binding sites, modifications of histones within chromatin, and coordinate chromatin dynamics associated with changes in gene transcription. Today's gene expression research seeks to understand the dynamics of RNA regulation, with the ultimate goal of bridging the gap between transcriptional control and protein expression. RNA-binding proteins (RBPs) play a key role in post-transcriptional regulation of gene expression.

RNA REGULATION: RNA-BINDING PROTEIN IMMUNOPRECIPITATION (RIP) KITS

RIP can be viewed as the RNA analog of the more well-known ChIP application. RIP can be used to identify specific RNA molecules associated with specific nuclear or cytoplasmic binding proteins. RIP begins with immunoprecipitation of endogenous complexes of RNA binding proteins and co-isolation of RNA species associated with the immunoprecipitated complex. After purification of these RNA species, they can be interrogated and identified as mRNAs or non-coding RNAs by a variety of applications including quantitative RT-PCR, microarray analysis (RIP-Chip) and high throughput sequencing (RIP-Seq).

17-10506
AccuChIP Acetyl-Histone H3 (Lys9) Chromatin Immunoprecipitation Internal Control
Target-specific spike-in controls that make ChIP experiments more quantitative and accurate. Applications include:

- Normalization of ChIP signals
- Normalization of ChIP-seq signals
- Analysis of antibody specificity

17-10501
AccuChIP Dimethyl-Histone H3 (Lys27) Chromatin Immunoprecipitation Internal Control
Target-specific spike-in controls that make ChIP experiments more quantitative and accurate. Applications include:

- Normalization of ChIP signals
- Normalization of ChIP-seq signals
- Analysis of antibody specificity

17-10503
AccuChIP Trimethyl-Histone H3 (Lys36) Chromatin Immunoprecipitation Internal Control
Target-specific spike-in controls that make ChIP experiments more quantitative and accurate. Applications include:

- Normalization of ChIP signals
- Normalization of ChIP-seq signals
- Analysis of antibody specificity

17-10505
AccuChIP Trimethyl-Histone H3 (Lys4) Chromatin Immunoprecipitation Internal Control
Target-specific spike-in controls that make ChIP experiments more quantitative and accurate. Applications include:

- Normalization of ChIP signals
- Normalization of ChIP-seq signals
- Analysis of antibody specificity

17-10502
AccuChIP Trimethyl-Histone H3 Internal Control(Lys27) Chromatin Immunoprecipitation
Target-specific spike-in controls that make ChIP experiments more quantitative and accurate. Applications include:

- Normalization of ChIP signals

- Normalization of ChIP-seq signals
- Analysis of antibody specificity

17-10504
AccuChIP Unmodified-Histone H3 (Lys4) Chromatin Immunoprecipitation Internal Control
Target-specific spike-in controls that make ChIP experiments more quantitative and accurate. Applications include:

- Normalization of ChIP signals
- Normalization of ChIP-seq signals
- Analysis of antibody specificity

17-245
Acetyl-Histone H3 Immunoprecipitation (ChIP) Assay Kit

17-229
Acetyl-Histone H4 Immunoprecipitation (ChIP) Assay Kit
Acetyl-Histone H4 Immunoprecipitation (ChIP) Assay Kit used to immunoprecipitate transcriptionally active chromatin from mammalian cells using anti-Acetyl-Histone H4, ChIP grade rabbit antiserum.

S6576
ChIP Next Gen Seq Sepharose™

17-10112
ChIPAb+ Acetyl Histone H3 (Lys23) - ChIP Validated Antibody and Primer Set
serum, from rabbit

17-10111
ChIPAb+ Acetyl-Histone H3 (Lys18) - ChIP Validated Antibody and Primer Set
serum, from rabbit

17-10050
ChIPAb+ Acetyl-Histone H3 (Lys4) - ChIP Validated Antibody and Primer Set
from rabbit, purified by affinity chromatography

17-10259
ChIPAb+ Acetyl-Histone H3 (Lys56) - ChIP Validated Antibody and Primer Set
from rabbit, purified by affinity chromatography

17-658

ChIPAb+ Acetyl-Histone H3 (Lys9) Purified - ChIP Validated Antibody and Primer Set
from rabbit, purified by using Protein A

17-609
ChIPAb+ Acetyl-Histone H3 (Lys9) Serum - ChIP Validated Antibody and Primer Set
serum, from rabbit

17-10241
ChIPAb+ Acetyl-Histone H3 (Lys9/18) - ChIP Validated Antibody and Primer Set
serum, from rabbit

17-630
ChIPAb+ Acetyl-Histone H4 - ChIP Validated Antibody and Primer Set
serum, from rabbit

17-10121
ChIPAb+ Acetyl-Histone H4 (Lys12) - ChIP Validated Antibody and Primer Set, rabbit monoclonal
from rabbit

17-10045
ChIPAb+ Acetyl-Histone H4 (Lys5) - ChIP Validated Antibody and Primer Set, rabbit monoclonal
culture supernatant, from rabbit

17-10099
ChIPAb+ Acetyl-Histone H4 (Lys8) - ChIP Validated Antibody and Primer Set
serum, from rabbit

17-10135
ChIPAb+ CBX8 - ChIP Validated Antibody and Primer Set
from rabbit

17-600
ChIPAb+ CREB - ChIP Validated Antibody and Primer Set, rabbit monoclonal
culture supernatant, clone NL904, from rabbit

17-10108
ChIPAb+ Dimethyl-Histone H3 (Lys27) - ChIP Validated Antibody and Primer Set, rabbit monoclonal
culture supernatant, from rabbit

17-677
ChIPAb+ Dimethyl-Histone H3 (Lys4) - ChIP Validated Antibody and Primer Set
clone CMA303, from mouse

17-10125
ChIPAb+ Dimethyl-Histone H3 (Lys79) - ChIP Validated Antibody and Primer Set, rabbit monoclonal
culture supernatant, clone NL59, from rabbit

17-681
ChIPAb+ Dimethyl-Histone H3 (Lys9) - ChIP Validated Antibody and Primer Set
clone CMA307, from mouse

17-648
ChIPAb+ Dimethyl-Histone H3 (Lys9) - ChIP Validated Antibody and Primer Set
serum, from rabbit

17-10250
ChIPAb+ Dimethyl-Histone H4 (Arg3) Symmetric - ChIP Validated Antibody and Primer Set
from rabbit, purified by affinity chromatography

17-10061
ChIPAb+ E2F-1 - ChIP Validated Antibody and Primer Set
from mouse

17-663
ChIPAb+ EED - ChIP Validated Antibody and Primer Set
from mouse

17-603
ChIPAb+ Estrogen Receptor a - ChIP Validated Antibody and Primer Set
ascites fluid, from mouse

17-608
ChIPAb+ HDAC1 - ChIP Validated Antibody and Primer Set
culture supernatant, from mouse

17-10199
ChIPAb+ HDAC1 Antibody, rabbit polyclonal
from rabbit

17-10054
ChIPAb+ Histone H2B - ChIP Validated Antibody and Primer Set
from rabbit

17-10046
ChIPAb+ Histone H3 (CT) - ChIP Validated Antibody and Primer Set, rabbit monoclonal
culture supernatant, from rabbit

17-675
ChIPAb+ Histone H3 (Unmodified Lys4) - ChIP Validated Antibody and Primer Set
clone CMA301, from mouse, purified by using protein G

17-10262
ChIPAb+ JMJD1C - ChIP Validated Antibody and Primer Set
from rabbit, purified by affinity chromatography

17-10263
ChIPAb+ JMJD6 - ChIP Validated Antibody and Primer Set
from rabbit, purified by affinity chromatography

17-604
ChIPAb+ LEF1 - ChIP Validated Antibody and Primer Set
from mouse

17-643
ChIPAb+ Monomethyl-Histone H3 (Lys27) - ChIP Validated Antibody and Primer Set
serum, from rabbit

17-10498
ChIPAb+ Monomethyl-Histone H3 (Lys36) - ChIP Validated Antibody and Primer Set
from rabbit, purified by affinity chromatography

17-676
ChIPAb+ Monomethyl-Histone H3 (Lys4) - ChIP Validated Antibody and Primer Set
from mouse

17-680
ChIPAb+ Monomethyl-Histone H3 (Lys9) - ChIP Validated Antibody and Primer Set
clone CMA306, from mouse, purified by using protein G

17-651
ChIPAb+ Monomethyl-Histone H4 (Lys20) - ChIP Validated Antibody and Primer Set
from rabbit, purified by affinity chromatography

17-655
ChIPAb+ Nanog Antibody - ChIP Validated Antibody and Primer Set
from mouse

17-10060
ChIPAb+ NFκB p65 (RelA) - ChIP Validated Antibody and Primer Set
from mouse

17-613
ChIPAb+ p53 - ChIP Validated Antibody and Primer Set
from mouse

17-10131
ChIPAb+ Phospho-CREB (Ser133) - ChIP Validated Antibody and Primer Set
from rabbit

17-10269
ChIPAb+ Phospho-Histone H3 (Ser28) Antibody
from rabbit, purified by affinity chromatography

17-10141
ChIPAb+ Phospho-Histone H3 (Thr3) - ChIP Validated Antibody and Primer Set, rabbit monoclonal
culture supernatant, clone JY325, from rabbit

17-656
ChIPAb+ Sox-2, clone 6F1.2 - ChIP Validated Antibody and Primer Set
clone 6F1.2, from mouse

17-601
ChIPAb+ Sp1 - ChIP Validated Antibody and Primer Set
from rabbit

17-661
ChIPAb+ SUZ12 - ChIP Validated Antibody and Primer Set
from mouse

17-10098
ChIPAb+ TATA Binding Protein (TBP) - ChIP Validated Antibody and Primer Set
ascites fluid, from mouse

17-10109
ChIPAb+ TCF-4 - ChIP Validated Antibody and Primer Set
from mouse

17-10242
ChIPAb+ Trimethyl-Histone H3 (Lys9) - ChIP Validated Antibody and Primer Set
clone CMA308, from mouse

17-625
ChIPAb+ Trimethyl-Histone H3 (Lys9) - ChIP Validated Antibody and Primer Set
from rabbit

17-671
ChIPAb+ Trimethyl-Histone H4 (Lys20) - ChIP Validated Antibody and Primer Set, rabbit monoclonal
culture supernatant, from rabbit

17-295
Chromatin Immunoprecipitation (ChIP) Assay Kit
Contains all necessary reagents to perform 22 individual chromatin immunoprecipitation (ChIP) reactions using inexpensive protein A agarose beads.

EPI024
Core Histone Isolation Kit
sufficient for 100 extractions

S7830
CpG WIZ™ BRCA1 -Methylation specific PCR assay
Methylation-specific PCR (MSP), performed using the CpGenome DNA Modification Kit & the CpG WIZ BRCA1 Amplification Kit, permits sensitive detection of altered DNA.

S7804
CpG WIZ™ E-Cadherin Amplification Kit
The CpG WIZ E-cahedrin Amplification Kit is used for determining the methylation of status of the E-cadherin promoter by methylation-specific PCR (MSP).

S7807
CpG WIZ™ Fragile X Amplification Kit
The components of the CpG WIZ Fragile X Amplification Kit include those required for PCR amplification after bisulfite modification of DNA samples. Sufficient reagents are provided to analyze 25 samples.

S7808
CpG WIZ™ GST-pi Amplification Kit
The components of the CpG WIZ GSTpi Amplification Kit include those required for PCR amplification after bisulfite modification of DNA samples. Sufficient reagents are provided to analyze 25 samples.

S7842
CpG WIZ™ H19-IGF2 Amplification Kit
The components of the CpG WIZ H19-IGF2 Amplification Kit include those required for PCR amplification after bisulfite modification of DNA samples.

S7803
CpG WIZ™ MGMT - Methylation specific PCR assay
The components of the CpG WIZ MGMT Amplification Kit include those required for PCR amplification after bisulfite modification of DNA samples. Sufficient reagents are provided to analyze 25 samples.

S7802
CpG WIZ™ p15 -Methylation specific PCR assay
The CpG WIZ p15 Amplification Kit is used for determining the methylation status of the p15 promoter by methylation-specific PCR (MSP).

S7806
CpG WIZ™ Prader-Willi/Angelman -Methylation specific PCR assay
The CpG WIZ Prader-Willi/Angelman Amplification Kit is used for determining the methylation status of this region by methylation-specific PCR (MSP).

S8005H
CpGenome 5-hmC DNA Standard

CpGenome 5-hmC DNA St&ard contains a linear, double-str&ed DNA (897 bp) with 100% hydroxymethylated cytosine. This st&ard can be used to calibrate applications aimed at analyzing & quantifying cytosine modifications.

S8003
CpGenome 5-mC & 5-hmC Human DNA Standards
The CpGenome 5-mC & 5-hmC Human DNA Standards provides two samples of human genomic DNA from the same individual.

17-10451
CpGenome Direct Prep Bisulfite Modification Kit (50 Reactions)
The CpGenome Direct Prep Bisulfite Modification Kit allows bisulfite conversion directly from a variety of starting materials, including cultured cells, blood, fresh tissue & fixed tissue samples.

S8001U
CpGenome Human Non-Methylated DNA Standard Set
It is intended for use as a negative control in gene methylation studies, such as bisulfite conversion of DNA with the CpGenome Turbo Bisulfite Modification Kit.

S7865
CpGenome Rat Methylated and Unmethylated Genomic DNA Standard Set
Useful as a control or standard for variety of epigenomic assays such as methylated or unmethylated DNA enrichment, bisulfite conversion or melt curve analysis to determine the status of global or locus- specific DNA methylation.

S7847
CpGenome Turbo Bisulfite Modification Kit
The CpGenome Turbo Bisulfite Modification Kit is designed to simplify & streamline the bisulfite modification process. In just 90 minutes go from DNA sample to bisulfite converted DNA ready for analysis.

EPS003
CUDC 101
A potent inhibitor of HDACs and receptor tyrosine kinases

17-408
EZ-Magna ChIP® A - Chromatin Immunoprecipitation Kit
Single day chromatin immunoprecipitation (ChIP) kit containing all necessary reagents to perform 22 individual chromatin immunoprecipitation (ChIP) reactions using magnetic A beads. Control primers included.

17-10086
EZ-Magna ChIP® A/G Chromatin Immunoprecipitation Kit
Single day chromatin immunoprecipitation (ChIP) kit containing all necessary reagents to perform 22 individual chromatin immunoprecipitation (ChIP) reactions using magnetic A/G beads. Control primers included.

17-409
EZ-Magna ChIP® G - Chromatin Immunoprecipitation Kit

Single day chromatin immunoprecipitation (ChIP) kit containing all necessary reagents to perform 22 individual chromatin immunoprecipitation (ChIP) reactions using magnetic G beads. Control primers included.

17-10521
EZ-Magna NuCLEAR™ RIP (Cross-Linked) Nuclear RNA-Binding Protein Immunoprecipitation Kit
EZ-Magna Nuclear RIP (Cross-Linked) RNA-Binding Protein Immunoprecipitation Kit is designed for the analysis of chromatin associated RNA such lncRNAs, enhancer RNAs and miRNAs.

17-375
EZ-Zyme™ Chromatin Prep Kit
Contains proprietary reagents optimized for the enzymatic shearing of chromatin from mammalian cells at higher resolution than sonication for use in chromatin immunoprecipitation (ChIP) assays.

17-344
H2A.X Phosphorylation Assay Kit (Flow Cytometry)
The H2A.X Phosphorylation Assay Kit (Flow cytometry) is a cell based assay formatted for flow cytometric detection of levels of phosphorylated Histone H2A.X.

03-182
HDAC2 (1-488) (His-tag) human recombinant
Human recombinant HDAC2 (1-488) (His-tag) produced in insect cells.

03-233
HDAC3 (His-tag) human recombinant
Human recombinant HDAC3 (His-tag) produced in insect cells.

EPI008
Histone Deacetylase (HDAC) Inhibitor Set I
Set includes 6 inhibitors

EPI007
Histone Deacetylase 8 (HDAC8) Inhibitor Screening Kit
100 assays in 96 well plates

CHP1
Imprint® Chromatin Immunoprecipitation Kit
Complete ChIP reaction in 6 hours in flexible strip well format

RIP
Imprint® RNA Immunoprecipitation Kit
High-capacity Protein A magnetic beads for successful RNA Immunoprecipitation,suitable for use with mRNA and microRNA

CHP2NC
Imprint® Ultra Chromatin Immunoprecipitation Kit, Without Controls
ChIP kit for maximum sensitivity, compatible with Next-Gen sequencing

CHROP

Imprint® Ultra Chromatin Optimization Kit

Kit designed to optimize sonication parameters for ChIP experiments

17-10085

Magna ChIP® A/G Chromatin Immunoprecipitation Kit

Single day chromatin immunoprecipitation (ChIP) kit containing all necessary reagents to perform 22 individual chromatin immunoprecipitation (ChIP) reactions using magnetic A/G beads.

17-10459

Magna ChIP® HT96 ChIP Plate Set

The Magna ChIP HT96 ChIP Plate se allows running of partial plates to minimize the risk of cross contamination of samples in sensitive endpoint analyses, such as qPCR.

17-10077

Magna ChIP® HT96 Chromatin Immunoprecipitation Kit

The Magna ChIP HT96 kit allows the performance of chromatin Immunoprecipitation in a 96-well plate-based format.

16-661

Magna ChIP® Protein A Magnetic Beads

Recombinant Protein A covalently bound to magnetic beads for use in chromatin immunoprecipitations (ChIP assays). These protein A beads provide users a more rapid, reproducible & efficient reagent for collecting immunocomplexes vs. agarose beads.

16-662

Magna ChIP® Protein G Magnetic Beads

Recombinant Protein G covalently bound to magnetic beads for use in chromatin immunoprecipitations (ChIP assays). These protein G beads provide users a more rapid, reproducible & efficient reagent for collecting immunocomplexes vs. agarose beads.

03-312M

Magna ChIRP Human HOTAIR lncRNA Probe Set

The Magna ChIRP Human HOTAIR lncRNA Probe Set contains 48 predesigned 20-mer DNA oligonucleotides tiled along and complementary to the sequence of Human lncRNA HOTAIR.

03-311M

Magna ChIRP Mouse XIST lncRNA Probe Set

The Magna ChIRP Mouse XIST lncRNA Probe Set contains 43 predesigned 20-mer DNA oligonucleotides tiled along and complementary to the sequence of mouse lncRNA XIST.

03-308

Magna ChIRP® NEAT1 lncRNA Probe Set

The Magna ChIRP NEAT1 lncRNA Probe Set contains 33 predesigned 20-mer DNA oligonucleotides tiled along and complementary to the sequence of human lncRNA NEAT1.

03-313M
Magna ChIRP U1snRNA Probe
The Magna ChIRP U1snRNA contains a 20-mer DNA oligonucleotide complementary to the sequence of Human RNA, U1 small nuclear 1.

03-314-M
Magna ChIRP U2snRNA Probe
The Magna ChIRP U2snRNA contains a 20-mer DNA oligonucleotide complementary to the sequence of Human RNA, U2 small nuclear 1.

20-400
Magna GrIP Rack (8 well)
polyethylene rack, to hold, 15 mL (tubes), to hold, 0.5 mL (tubes), suitable for ChIP, suitable for RIP

17-700
Magna RIP® RNA-Binding Protein Immunoprecipitation Kit
RNA Immunoprecipitation (RIP) Kit containing all necessary reagents to perform 12 individual RNA-binding protein immunoprecipitation (RIP) reactions using protein A/G magnetic beads.

03-250
RIPAb+ Ago3 Antibody
clone 4B1-F6, from mouse

03-119
RIPAb+ CUGBP2 - RIP Validated Antibody and Primer Set
from mouse

03-178
RIPAb+ SMN - RIP Validated Antibody and Primer Set
from mouse

Microbiome

The microbiome refers to the collective genomes or genetic material of all microbes in a particular environment, called the microbiota. The human microbiome describes the collected microbiomes of the human body that reside primarily in the gut, and that vary considerably from one individual to another and among different anatomical sites. Factors that can influence the microbiome include diet, lifestyle, genetics, anatomical site, antibiotics and pathogens.

MICROBIOME RESEARCH

In the emerging field of microbiome research, scientists are challenged to identify and characterize unknown microbes that can be difficult to isolate, culture, and study. Applications of human, animal, and environmental microbiome analyses have the potential to lead to the discovery of new therapeutic and natural products. Our scientists are creating new solutions to help you culture and/or identify microbes for characterization of microbial communities.

To enable the discovery of novel microbes, we offer:

- **MetaPolyzme** for digestion of difficult microbes and isolation of total DNA
- DNA-free enzymes for contamination-free analysis
- Antibodies highly specific for bacteria and bacterial components
- Individual DNA standards and inactivated bacteria to avoid bias and increase reproducibility

MICROBIAL MEDIA

Microorganisms have diverse nutritional requirements, differing metabolisms, are inhibited by different compounds, and can often only be detected using specific indicator systems. Selective media allow the growth of only certain species or strains with specific attributes, while nonselective culture media promote growth of a broad range of organisms. Media with a differentiation system can be used to identify or at least to differentiate microorganisms from one another. For microbial community characterization and DNA preparation, we offer a wide array of **microbial media** and **raw materials**.

MICROBIOME STANDARDS

Next Generation Sequencing (NGS) technology has facilitated sequencing of microbial DNA in large volumes, enabling complex microbiome sample analysis. In order to avoid bias and achieve reproducibility in microbiome analysis, standardization is critical. Standardization is key to the future of microbiome and metagenomic research that can generate accurate and valid data.

We offer a growing list of individual microbial DNA and inactivated bacteria **microbiome standards** that are suitable for PCR, sequencing and NGS. These convenient, ready-to-use individual standards add value by providing a specific, customized control. These economical standards support microbiomics or metagenomics workflows by increasing reproducibility and allowing reliable comparison of results from other laboratories.

ANTIBODIES FOR MICROBIOME RESEARCH

Our portfolio of antibodies for microbiome analysis includes highly specific antibodies that bind bacteria or bacterial components (e.g. toxins, unique proteins and lipopolysaccharides), suitable for diverse applications for detection and isolation of specific bacteria. Key immunodetection applications include ELISA, Western blot (WB), imaging, and isolation.

DNA-FREE LYTIC ENZYMES FOR MICROBIOME RESEARCH

The study of microbial communities has been revolutionized in recent years by the widespread adoption of culture-independent analytical techniques such as 16S rRNA gene sequencing and metagenomics. Since DNA contamination during sample preparation is a

significant confounder of these sequence-based approaches, DNA extraction reagents free of DNA contaminants are essential. Another major challenge in processing microbiome samples is that microbes are difficult to disrupt – the cell walls can form capsules or resistant spores when processed. DNA can be extracted from the microbes by using lysing enzymes to induce partial spheroplast formation. These spheroplasts are subsequently lysed to release DNA. Purified lytic enzymes undergo strict quality control testing to ensure they will be free of DNA contaminants, and therefore suitable for microbiome research. Learn about our lytic enzymes **here**.

MICROBIOME DNA PURIFICATION KITS

In order to study the role of microbiota in human, animal, and environmental health, accurate and reproducible microbial data must be obtained. It is therefore vital to apply an appropriate methodology for the extraction of microbial DNA. Setting up the optimal DNA isolation procedure is critical for robustness and reproducibility of the results, as ineffective DNA extraction may result in microbial community mischaracterization. Our DNA purification kits provide convenient and rapid methods to isolate high-quality and high-yield microbial DNA from diverse samples.

SAE0196
Achromopeptidase from bacteria
free of DNA contaminants, suitable for Microbiome research

SAB4200823
Anti- Protease-7 antibody produced in rabbit
affinity isolated antibody

SAB4200818
Anti- Proteus mirabilis antibody produced in rabbit
IgG fraction of antiserum

SAB4200805
Anti-β-Galactosidase antibody, Mouse monoclonal
clone GAL-13, purified from hybridoma cell culture

SAB4200832
Anti-Porphyromonas gingivalis antibody produced in rabbit
IgG fraction of antiserum

SAB4200774
Anti-Shiga Toxin 1, B Subunit (STxB) antibody, Mouse monoclonal
clone 13C4, purified from hybridoma cell culture

SAB4200799
Anti-Shiga Toxin 1, B Subunit-FITC antibody, Mouse monoclonal
clone 13C4, purified from hybridoma cell culture

BACSMLS
Bile Acid/Carnitine/Sterol Metabolite Library of Standards
Supplied by IROA Technologies

SAE0158
Chitinase from *Streptomyces griseus*
chromatographically purified, lyophilized powder, free of DNA contaminants, suitable for Microbiome research

SBR00029
Dansyl labeled polymyxin B Ready Made Solution
for fluorescent microbial imaging, 1.5 mg/mL in H_2O

MBD0015
DAPI ready made solution
For Nuclear counterstain in immunoflourecence microscopy, High Content Screening (HCS), Chromosome staining and flow cytometry (FACS)., 1 mg/mL

SAE0010
EC-Oxyrase®

FAMLS
Fatty Acid Metabolite Library of Standards
Supplied by IROA Technologies

SBR00028
FITC labeled vancomycin
for fluorescent microbial imaging

WORKFLOW
IROA TruQuant Yeast Extract Workflow Kit
Supplied by IROA Technologies

SML2430
Kdo2-Lipid A (KLA)
≥90% (HPLC)

SMB00610
Lipopolysaccharide from Porphyromonas gingivalis
purified by phenol extraction

L9641
Lipopolysaccharides (rough strains) from *Escherichia coli* EH100 (Ra mutant)

L6893
Lipopolysaccharides (rough strains) from *Escherichia coli* F583 (Rd mutant)

L5014
Lipopolysaccharides (rough strains) from *Escherichia coli* J5 (Rc mutant)

L9764
Lipopolysaccharides (rough strains) from *Salmonella enterica* serotype minnesota Re 595 (Re mutant)

SBR00027
Lipopolysaccharides from *Akkermansia muciniphila*
Purified by phenol extraction

L2018
Lipopolysaccharides from *Escherichia coli* K-235
purified by gel-filtration chromatography

L2143
Lipopolysaccharides from *Escherichia coli* K-235
purified by phenol extraction

L3012
Lipopolysaccharides from *Escherichia coli* O111:B4
purified by gel-filtration chromatography

L2630
Lipopolysaccharides from *Escherichia coli* O111:B4
purified by phenol extraction

L4130
Lipopolysaccharides from *Escherichia coli* O111:B4
purified by trichloroacetic acid extraction

F3665
Lipopolysaccharides from *Escherichia coli* O111:B4
FITC conjugate

L5293
Lipopolysaccharides from *Escherichia coli* O111:B4
Ready Made solution, 1 mg/mL

L3024
Lipopolysaccharides from *Escherichia coli* O111:B4
purified by ion-exchange chromatography, TLR ligand tested

L3023
Lipopolysaccharides from *Escherichia coli* O111:B4
Detoxified

L3137
Lipopolysaccharides from *Escherichia coli* O127:B8
purified by gel-filtration chromatography

L5668
Lipopolysaccharides from *Escherichia coli* O127:B8
Ready Made solution, 1 mg/mL

L5024
Lipopolysaccharides from *Escherichia coli* O127:B8
purified by ion-exchange chromatography, TLR ligand tested

L3129
Lipopolysaccharides from *Escherichia coli* O127:B8
purified by phenol extraction

L2887
Lipopolysaccharides from *Escherichia coli* O128:B12
purified by gel-filtration chromatography

L2755
Lipopolysaccharides from *Escherichia coli* O128:B12
purified by phenol extraction

L5543
Lipopolysaccharides from *Escherichia coli* O26:B6
Ready Made solution, 1 mg/mL, 0.2 µm filtered

L3755
Lipopolysaccharides from *Escherichia coli* O26:B6
purified by trichloroacetic acid extraction

L2762
Lipopolysaccharides from *Escherichia coli* O26:B6
purified by gel-filtration chromatography

L8274
Lipopolysaccharides from *Escherichia coli* O26:B6

≥10,000 EU/mg, purified by phenol extraction

L4524
Lipopolysaccharides from *Escherichia coli* O55:B5
purified by ion-exchange chromatography, TLR ligand tested

L2637
Lipopolysaccharides from *Escherichia coli* O55:B5
purified by gel-filtration chromatography

L4005
Lipopolysaccharides from *Escherichia coli* O55:B5
purified by trichloroacetic acid extraction

L5418
Lipopolysaccharides from *Escherichia coli* O55:B5
Ready Made solution, 1 mg/mL

L2880
Lipopolysaccharides from *Escherichia coli* O55:B5
purified by phenol extraction

L4268
Lipopolysaccharides from *Klebsiella pneumoniae*
purified by phenol extraction

SMB00704
Lipopolysaccharides from *Proteus mirabilis*
purified by phenol extraction

SMB00801
Lipopolysaccharides from *Proteus vulgaris*
purified by phenol extraction

L7018
Lipopolysaccharides from *Pseudomonas aeruginosa* 10
purified by trichloroacetic acid extraction

L9143
Lipopolysaccharides from *Pseudomonas aeruginosa* 10
purified by phenol extraction

L5886
Lipopolysaccharides from *Salmonella enterica* serotype abortus equi
purified by phenol extraction

L2012
Lipopolysaccharides from *Salmonella enterica* serotype enteritidis
purified by gel-filtration chromatography

L7770
Lipopolysaccharides from *Salmonella enterica* serotype enteritidis
γ-irradiated, BioXtra, suitable for cell culture

L4774
Lipopolysaccharides from *Salmonella enterica* serotype enteritidis
purified by ion-exchange chromatography

L6011
Lipopolysaccharides from *Salmonella enterica* serotype enteritidis
purified by phenol extraction

L2137
Lipopolysaccharides from *Salmonella enterica* serotype minnesota
purified by gel-filtration chromatography

L7261
Lipopolysaccharides from *Salmonella enterica* serotype typhimurium
purified by trichloroacetic acid extraction

L6511
Lipopolysaccharides from *Salmonella enterica* serotype typhimurium
purified by phenol extraction

L2262
Lipopolysaccharides from *Salmonella enterica* serotype typhimurium
purified by gel-filtration chromatography

L8274
Lipopolysaccharides from *Escherichia coli* O26:B6
≥10,000 EU/mg, purified by phenol extraction

L4524
Lipopolysaccharides from *Escherichia coli* O55:B5
purified by ion-exchange chromatography, TLR ligand tested

L2637
Lipopolysaccharides from *Escherichia coli* O55:B5
purified by gel-filtration chromatography

L4005
Lipopolysaccharides from *Escherichia coli* O55:B5

purified by trichloroacetic acid extraction

L5418
Lipopolysaccharides from *Escherichia coli* O55:B5
Ready Made solution, 1 mg/mL

L2880
Lipopolysaccharides from *Escherichia coli* O55:B5
purified by phenol extraction

L4268
Lipopolysaccharides from *Klebsiella pneumoniae*
purified by phenol extraction

SMB00704
Lipopolysaccharides from *Proteus mirabilis*
purified by phenol extraction

SMB00801
Lipopolysaccharides from *Proteus vulgaris*
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Lipopolysaccharides from *Pseudomonas aeruginosa* 10
purified by trichloroacetic acid extraction

L9143
Lipopolysaccharides from *Pseudomonas aeruginosa* 10
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L5886
Lipopolysaccharides from *Salmonella enterica* serotype abortus equi
purified by phenol extraction

L2012
Lipopolysaccharides from *Salmonella enterica* serotype enteritidis
purified by gel-filtration chromatography

L7770
Lipopolysaccharides from *Salmonella enterica* serotype enteritidis
γ-irradiated, BioXtra, suitable for cell culture

L4774
Lipopolysaccharides from *Salmonella enterica* serotype enteritidis
purified by ion-exchange chromatography

L6011
Lipopolysaccharides from *Salmonella enterica* serotype enteritidis
purified by phenol extraction

L2137
Lipopolysaccharides from *Salmonella enterica* serotype minnesota
purified by gel-filtration chromatography

L7261
Lipopolysaccharides from *Salmonella enterica* serotype typhimurium
purified by trichloroacetic acid extraction

L6511
Lipopolysaccharides from *Salmonella enterica* serotype typhimurium
purified by phenol extraction

L2262
Lipopolysaccharides from *Salmonella enterica* serotype typhimurium
purified by gel-filtration chromatography

L7895
Lipopolysaccharides from *Salmonella typhosa*
γ-irradiated, BioXtra, suitable for cell culture

L2387
Lipopolysaccharides from *Salmonella typhosa*
purified by gel-filtration chromatography

L6386
Lipopolysaccharides from *Salmonella typhosa*
purified by phenol extraction

L6136
Lipopolysaccharides from *Serratia marcescens*
purified by phenol extraction

LSMLS01
LSMLS™ Plate 1 (Water Soluble)
Supplied by IROA Technologies

LSMLS02
LSMLS™ Plate 2 (Water Soluble)
Supplied by IROA Technologies

LSMLS03

LSMLS™ Plate 3 (Water Soluble)
Supplied by IROA Technologies

☐

LSMLS04
LSMLS™ Plate 4 (Water Soluble)
Supplied by IROA Technologies

☐

LSMLS05
LSMLS™ Plate 5 (Water Soluble)
Supplied by IROA Technologies

☐

LSMLS07
LSMLS™ Plate 7 (Lipophilic)
Supplied by IROA Technologies

☐

SAE0091
Lysostaphin from *Staphylococcus staphylolyticus*
free of DNA contaminants, suitable for Microbiome research, lyophilized powder, ≥500 units/mg protein

☐

SAE0152
Lysozyme from chicken egg white
free of DNA contaminants, suitable for Microbiome research, lyophilized powder, protein ≥90%, ≥40,000 units/mg protein

☐

SAE0098
Lyticase from *Arthrobacter luteus*
free of DNA contaminants, suitable for Microbiome research, ≥2000 units/mg protein, lyophilized powder

☐

MAC4L
MetaPolyzyme
lyophilized powder

☐

MAC4LDF
MetaPolyzyme, DNA free
Suitable for Microbiome research, lyophilized powder

☐

MSMLS01
MSMLS™ Plate 1 (Water Soluble)
Supplied by IROA Technologies

☐

MSMLS02
MSMLS™ Plate 2 (Water Soluble)
Supplied by IROA Technologies

☐

MSMLS03
MSMLS™ Plate 3 (Water Soluble)
Supplied by IROA Technologies

MSMLS04
MSMLS™ Plate 4 (Water Soluble)
Supplied by IROA Technologies

MSMLS05
MSMLS™ Plate 5 (Water Soluble)
Supplied by IROA Technologies

MSMLS06
MSMLS™ Plate 6 (Lipophilic)
Supplied by IROA Technologies

MSMLS07
MSMLS™ Plate 7 (Lipophilic)
Supplied by IROA Technologies

SAE0092
Mutanolysin from *Streptomyces globisporus* ATCC 21553
free of DNA contaminants, suitable for Microbiome research, lyophilized powder, ≥4000 units/mg protein (biuret)

OAMLS
Organic Acid Metabolite Library of Standards
Supplied by IROA Technologies

SAE0060
OxyDish™

SAE0059
OxyFluor™

SAE0013
Oxyrase ® for Broth

SAE0151
Proteinase K from Tritirachium album
free of DNA contaminants, suitable for Microbiome research, lyophilized powder, ≥30 units/mg protein

ML0010
TCA Cycle Metabolite Library

V1
Vitamins Kit
~98% (Components, TLC)

Алматы (7273)495-231
Ангарск (3955)60-70-56
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