

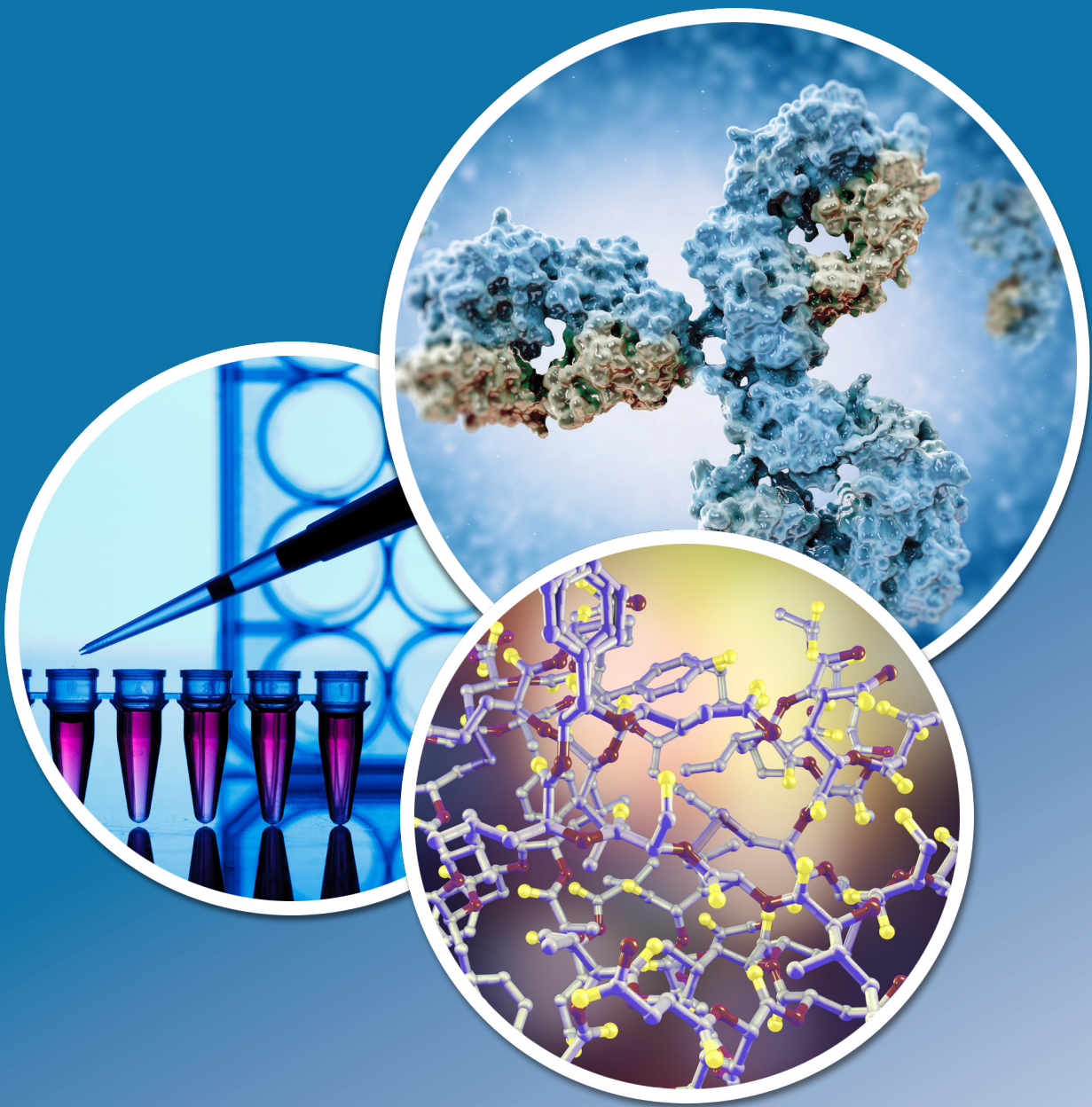
BIOZOL

FIT FOR SCIENCE

Molecular Biology



BRINGING QUALITY & EFFICIENCY TO RESEARCH





Your Partner for Molecular Biology

Biozol Diagnostica Vertrieb GmbH are proud to have been providing products and services within the life science arena since 1989. We always aspire to give our customers the fastest response times and high standards of customer service.

Molecular biology concerns the molecular basis of biological activity between biomolecules in the various systems of a cell, including the interactions between DNA, RNA, and proteins, their biosynthesis, as well as the regulation of these interactions.

Standard techniques include:

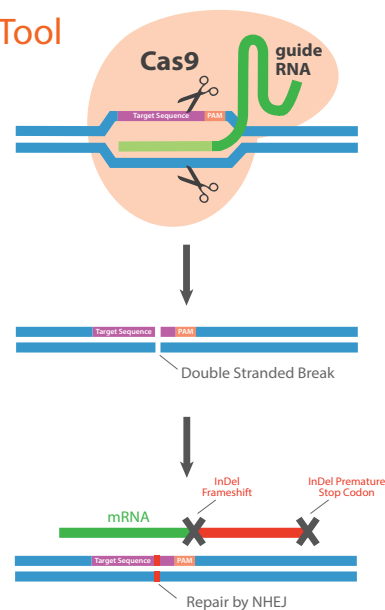
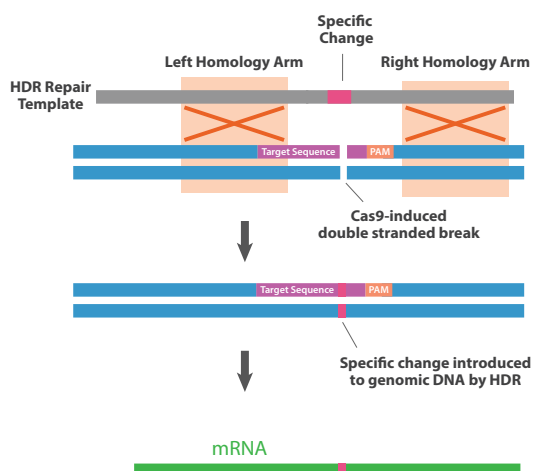
- Molecular cloning and gene editing
- Polymerase Chain Reaction (PCR)
- Gel electrophoresis and Blotting
- Fluorescence *in situ* hybridization (FISH)
- Chromatin Immunoprecipitation (ChIP)
- Biolabeling

BIOZOL offers an extensive range of reagents, kits and supplementary products to support your molecular biology research.

CRISPR / Cas9

A Versatile and Fully-Customizable Genome Editing Tool

CRISPR/Cas9 allows for highly specific genomic modification and the silencing of genes of interest. This versatile system requires co-expression of two distinct components: (1) a nuclease, Cas9, and (2) a target-specific single guide RNA (sgRNA). *Streptococcus pyogenes* Cas9 interrogates the genome for sequences complementary to the 20 nucleotide target region of the sgRNA and adjacent to the protospacer-adjacent motif (PAM) "5'-NGG". The Cas9 nuclease introduces a double strand break, which is then repaired by a highly error-prone process called Non-Homologous End Joining (NHEJ). This can result in a frameshift insertion or deletion (InDel), thus effectively silencing the gene.



Gene Knock-In with CRISPR/Cas9

In addition to NHEJ, cells can utilize Homology Directed Repair (HDR), which can be exploited to introduce specific modifications to genomic DNA. If a repair template is provided containing the desired new sequence, flanked by homologous sequences immediately upstream and downstream of the double strand break, the new sequence will be permanently introduced into the genomic DNA via homology directed repair.

Cas9 Type	Product Type	Cat.No.
spCas9 Nuclease (wild-type)	Lentiviral vector / Lentivirus	K002 / K003
	Adenovirus	K004
	Protein	K008, K009, K030, K031
	Stable Cell Lines (293T, 293, A549, HeLa, etc.)	T3251, T3252, T3253, T3254, etc.
spCas9 Nickase (modified)	Lentiviral vector / Lentivirus	K005 / K006
	Adenovirus	K007
	Protein (D10A / H840A)	K032, K034 / K036, K038
saCas9 Nuclease	AAV Vector	K207
	AAV Virus (Serotypes 1 to 11)	K208 to K218
	Protein (wildtype / null mutant)	K044, K045 / K046, K047

CRISPR sgRNA Format	Individual or Set of 3	Cas9 Type	Product Type
sgRNA only (Cas9 required separately)	Individual sgRNA	spCas9	Lentiviral vector / Lentivirus
			Adenovirus
			AAV vector / AAV
	Set of 3 sgRNA	saCas9	Non-Viral Vector
			AAV vector / AAV
			AAV vector / AAV
All-In-One (sgRNA and Cas9 in a single vector)	Individual sgRNA	spCas9	Lentiviral vector / Lentivirus
			Non-Viral Vector
			AAV vector / AAV
	Set of 3 sgRNA	saCas9	Lentiviral vector / Lentivirus
			Non-Viral Vector
			Non-Viral Vector

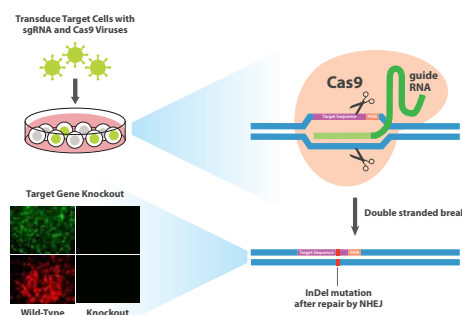
dCas9 Variant	Application	Product Type	Cat.No.
dCas9	Any genome targeting experiment	Lentiviral vector	K012, K014
		Lentivirus	K013
		Protein	K040, K042, K086
dCas9 - SAM	Transcription activation	Lentiviral vector	K015
		Lentivirus	K016
dCas9 - KRAB	Transcription repression	Lentiviral vector	K203
		Lentivirus	K204

CRISPR Services

CRISPR Custom Knockout Service

Cat. No. C208

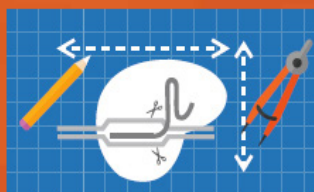
With this highly customized service, we can knockout any gene in any cell line. All you have to do is send us your desired target cells and the species, gene name, and accession number of the gene to be knocked out. The successfully genome-edited cells will be shipped back to you after strict quality control and verification of gene knockout. **Now available:** 100% Guaranteed CRISPR Knockout Service (C508).



E. coli Knockout/Knock-In Services

Cat. No. C424 & C425

CRISPR-assisted gene knockout and knock-in services are available for *E. coli*! Simply select an *E. coli* strain and the sequence to be knocked in or out, and receive your edited bacteria in as little as 8 weeks.



CRISPR Project Design Tool

Get a tailored list of tools for your gene editing project

info.abmgood.com/myCRISPR



CRISPR Crash Course

Our FREE 4-week course teaches you how to do a CRISPR gene KO

info.abmgood.com/crispr-crash-course



CRISPR Knockout Handbook

Our FREE 39-page manual includes protocols & case studies

info.abmgood.com/crispr-KO

mutaFISH™ (mutation-specific Fluorescence A

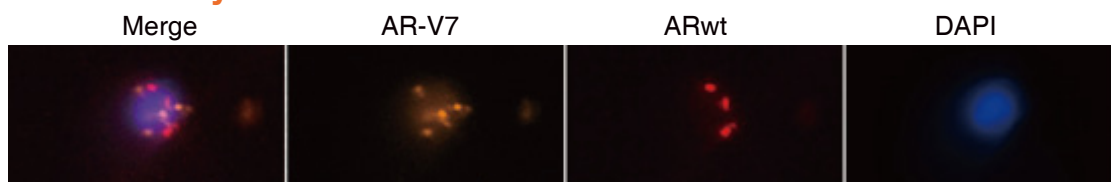
Single Cell, Single Molecule, DNA and RNA Mutation Detection at S

The ability to interrogate cellular heterogeneity at the single cell and single molecule levels has gained increased importance. Many bioreagents and techniques exist to address this issue separately. None have the unified approach to detect and quantify DNA and RNA changes across diverse spectrum particularly point mutations and single-nucleotide polymorphisms (SNP) while maintaining their spatial context.

Abnova provides a growing portfolio of off-the-shelf, validated mutaFISH™ probes and accessory reagents to address the unmet needs in the research and clinical settings.

Applications

Cell *In Situ* Hybridization



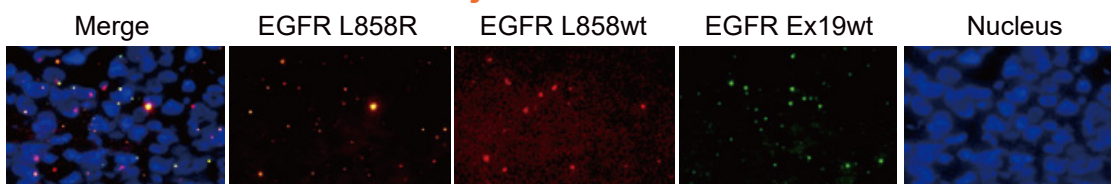
mutaFISH™ staining was performed *in situ* in human CWR22Rv1 cells captured by CytoQuest™ CR. AR-V7 was detected via orange signal (Cy3), and ARwt was detected via red signal (Cy5).

Circulating Tumor Cell *In Situ* Hybridization



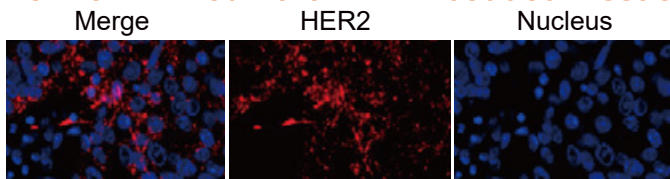
mutaFISH™ staining was performed *in situ* in CTCs from NSCLC patient. CTCs were detected by using immunofluorescence staining for CSV (FITC, green). EGFR L858R point mutation was detected via orange signal (Cy3) and EGFR Ex19wt was detected via purple signal (Texas Red).

Fresh Frozen Tissue *In Situ* Hybridization



mutaFISH™ staining was performed *in situ* in human frozen lung adenocarcinoma tissue. EGFR L858R point mutation was detected via orange signal (Cy3), EGFR L858wt was detected via red signal (Cy5), and EGFR Ex19wt was detected via green signal (Texas Red).

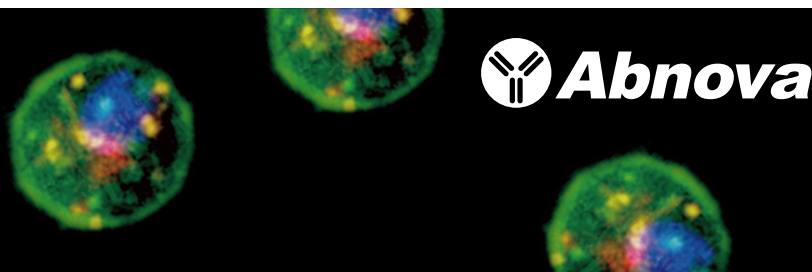
Formalin-Fixed Paraffin-Embedded Tissue *In Situ* Hybridization



mutaFISH™ staining was performed *in situ* in human breast cancer FFPE tissue. HER2 was detected via red signal (Cy5).

In Situ Hybridization)

Single Nucleotide Resolution



Advantages

- Single Cell, Single Molecule Detection
- In situ Analysis of DNA & RNA
- Single Nucleotide Resolution
- Higher Sensitivity than dPCR and NGS
- Multiplexing Capability
- Cross Analytical Platforms
- No DNA or RNA Extraction

Catalog No.	Product Name
FP0013	mutaFISH™ ACTBwt RNA Probes
FP0004	mutaFISH™ AR-V7 ARwt RNA Probes
FP0011	mutaFISH™ BRAF V600E V600wt RNA Probes
FP0009	mutaFISH™ CEP1wt CEP7wt CEP8wt CEP17wt DNA Probes
FP0008	mutaFISH™ CEP1wt DNA Probes
FP0006	mutaFISH™ CEP7wt DNA Probes
FP0005	mutaFISH™ CEP8wt DNA Probes
FP0007	mutaFISH™ CEP17wt DNA Probes
FP0027	mutaFISH™ CK7wt RNA Probes
FP0028	mutaFISH™ CK9wt RNA Probes
FP0015	mutaFISH™ c-Mycwt RNA Probes
FP0025	mutaFISH™ CXCL9 RNA Probes
FP0026	mutaFISH™ CXCL10 RNA Probes
FP0023	mutaFISH™ EGFRwt RNA Probes
FP0001	mutaFISH™ EGFR T790M T790wt RNA Probes
FP0002	mutaFISH™ EGFR L858R L858wt Ex19wt RNA Probes
FP0014	mutaFISH™ EML4wt ALKwt RNA Probes
FP0024	mutaFISH™ ERCC1wt RNA Probes
FP0022	mutaFISH™ HER2wt RNA Probes
FP0010	mutaFISH™ HER2wt DNA Probes
FP0021	mutaFISH™ HLA-ABCwt RNA Probes
FP0012	mutaFISH™ IDH1 R132H R132wt IDH2 R172K R172wt RNA Probes
FP0017	mutaFISH™ KRAS G12wt G13wt RNA Probes
FP0020	mutaFISH™ MAMwt RNA FISH Probes
FP0003	mutaFISH™ MYCNwt DNA Probes
FP0019	mutaFISH™ PD-L1wt RNA Probes
FP0018	mutaFISH™ PSAwt RNA Probes
FP0016	mutaFISH™ TERTwt RNA Probes
KA4915	mutaFISH™ RNA Accessory Kit
KA4916	mutaFISH™ DNA Accessory Kit 1 for Cells
KA4928	mutaFISH™ DNA Accessory Kit 2 for Cells

More sensitive than MTT, MTS or WST-1

No toxicity to cell

Simpler steps, no organic solvents required

A stable one-bottle solution ready-to-use

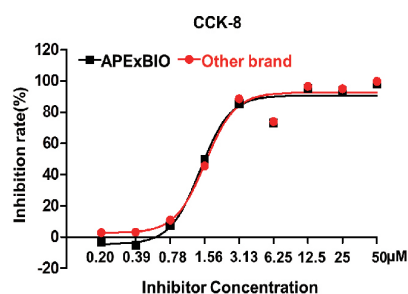
Cell Counting Kit-8 (CCK-8)

For cell proliferation assay and cytotoxicity assay



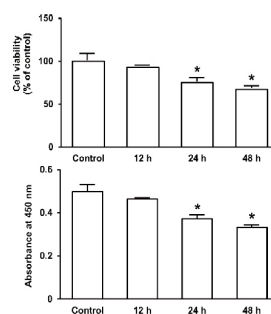
APExBIO Cell Counting Kit-8 (CCK-8) (Cat.No. K1018) provides a more convenient and sensitive way for the research of cell number determination and cell proliferation/cytotoxicity assay than other methods. The kit utilizes a highly water-soluble tetrazolium salt, WST-8, which produces a water-soluble formazan dye upon reduction in the presence of an electron mediator. The amount of the formazan generated by dehydrogenases is directly in proportion to the numbers of living cells. The detection sensitivity by CCK-8 is higher than other tetrazolium salts such as MTT, XTT, MTS or WST-1.

► Comparison



Cell growth inhibition detected by Cell Counting Kit-8 purchased from APExBIO and other major brand

► Validation



Cell Proliferation Assay using APExBIO Cell Counting Kit-8

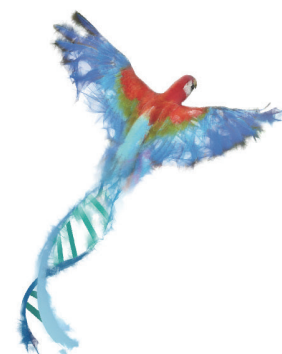
► Product

Size	Content
100 tests	1ml x 1
500 tests	5ml x 1
1000 tests	5ml x 2
3000 tests	5ml x 6
10000 tests	5ml x 20

Safe DNA Gel Stain

Excellent for DNA/RNA Visualization

- ▶ BLUE LIGHT OR UV ? NO PROBLEM!
- ▶ AGROSE OR ACRYLAMIDE? SURE!
- ▶ Before or After Electrophoresis ? YOU BET!
- ▶ PLUS :SAFE AND SENSITIVE



Safe DNA Gel Stain (Cat.No. A8743) is a very sensitive stain for visualization of DNA/RNA in agarose/acrylamide gels. It is specifically developed as a less hazardous alternative to mutagen ethidium bromide and can utilize both blue-light and UV excitation. Safe DNA Gel Stain is provided as 10,000X concentrate in DMSO and used in the same way as ethidium bromide solution. [It is equivalent to SYBR Safe DNA Gel Stain.](#)

▶ Features

Safer for your health

Safer alternative to ethidium bromide, shows little or no genotoxicity and no acute toxicity

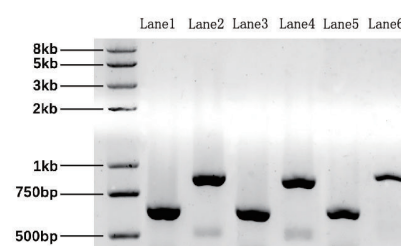
Safer for the environment

Not classified as hazardous waste under US federal regulations, reduces waste storage and disposal costs

Safer for your sample

Enhanced cloning efficiency and less damage to DNA when illuminated with blue-light, improves sensitivity with reduced nonspecific background fluorescence

▶ Validation



BIOMOLECULE LABELING & CONJUGATION

Baseclick offers most efficient and reliable labeling products based on its perfected and proprietary bioconjugation concept - click chemistry. As leading pioneer in high-end nucleic acid modification, they understand themselves as transformative enabler for the development of new and value added applications, e.g. single-molecule NGS sequencing, best-in-class cell proliferation tests, engineered mRNA,...

Their high-end nucleic acid modification and bioconjugation platform opens the door to accelerated innovation of superior tools, automated read-outs, kits & reagents.

Large Portfolio of BIOCONJUGATION Reagents:

As the reaction is only depending on the azide and alkyne partners and precursors are easily made available, theoretically there is **no limitation** in the **functional moiety** to be attached. At the moment we offer various:



- ★ Dyes,
- ★ Triphosphates,
- ★ Click Chemistry Reagents,
- ★ Fatty acids & carbohydrates,
- ★ Amino Acids & peptides,
- ★ Phosphoramidites & Nucleotides, etc... with click-ready functional groups.

REAGENTS & KITS for LABELED AND FUNCTIONAL mRNA

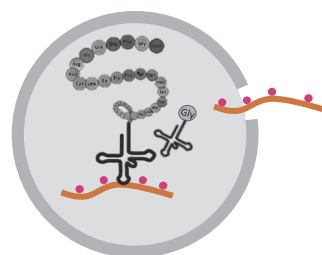
- Prepare dye-labeled mRNA
- Track and localize mRNA in cell culture
- Quantify mRNA transfection performance
- Assuring and testing biocompatibility of modified constructs
- Assessing mRNA biodistribution

TTT-mRNA prep Kits: The ALL-IN-ONE Gene Messenger Kit

ALL-IN-ONE Kit for transcription, purification, labeling, transfection & tracking of mRNA. It is the ideal complete tool for biodistribution studies in mRNA research and drug development.

Modifications, Transfection & Purification

Baseclick is offering a range of RNA modifiers, a kit for efficient purification of labeled mRNA as well as a kit for transfecting modified mRNA.



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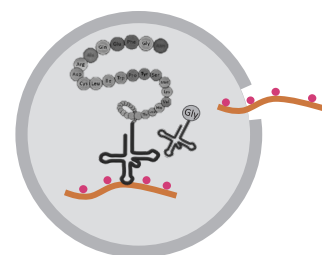
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Liquid biopsy



Tissue



Cell culture

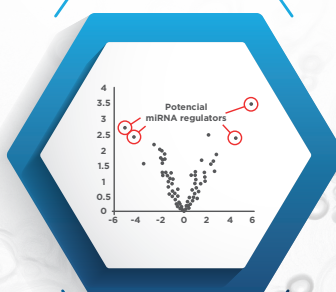


Isolation RNA Isolation kits

- From cells, tissues, whole blood
- From serum, plasma

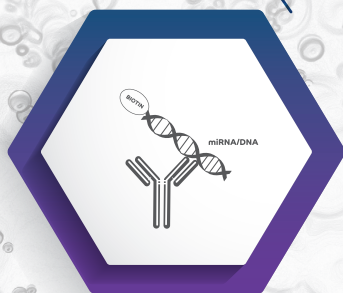
Target screening TAmiRNA panels

- Validated bone biomarkers
- Biomarkers of platelet function



Target screening MiRXES miRNA ID3EAL Knowledge Panels

- Predesigned panels up to 352 miRNAs
- Custom panels



Immunoassay validation miREIA patented kits

- Absolute quantification
- High reproducibility
- As fast as ELISA • Customization



qPCR validation MiRXES ID3EAL qPCR assays

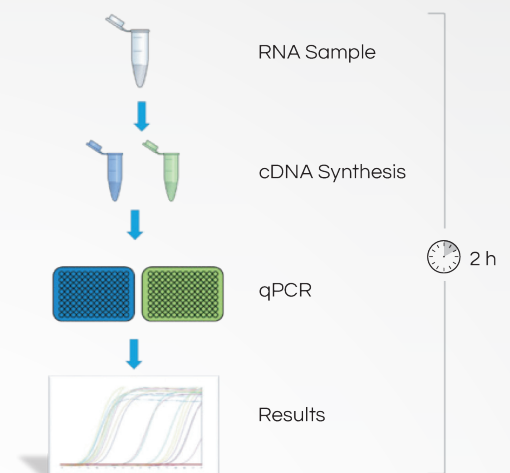
- Wide spectrum of miRNAs available
- High sensitivity • Low sample amount
- Multiplexing • Customization



ID3EAL miRNA Knowledge Panels

Each panel profiles 176 or 352 miRNAs selected through extensive survey of published literature and in-house research data

- produce results from RNA samples in just 2 hours
- reliable data from assays optimized by proprietary algorithm and wet-lab validated with synthetic miRNA templates and RNA from biological samples
- ready-to-use; all reagents, including two spike-in RNAs and interplate PCR calibrators
- automated analysis template based on open Excel template; includes options for expression normalization, data visualization and data integrity checks



Biofluid miRNA panel

- miRNAs selectively and actively secreted by cells as a means of inter-cellular communication
- 192 targets (176 miRNAs)

Cancer miRNA panel

- miRNAs intimately involved in every hallmark of cancer, could provide insights into cancer pathogenesis, drug response and recurrence
- 384 targets (352 miRNAs)

Ask for more information at sales@biovendor.com!



Immunoassay based miREIA assays

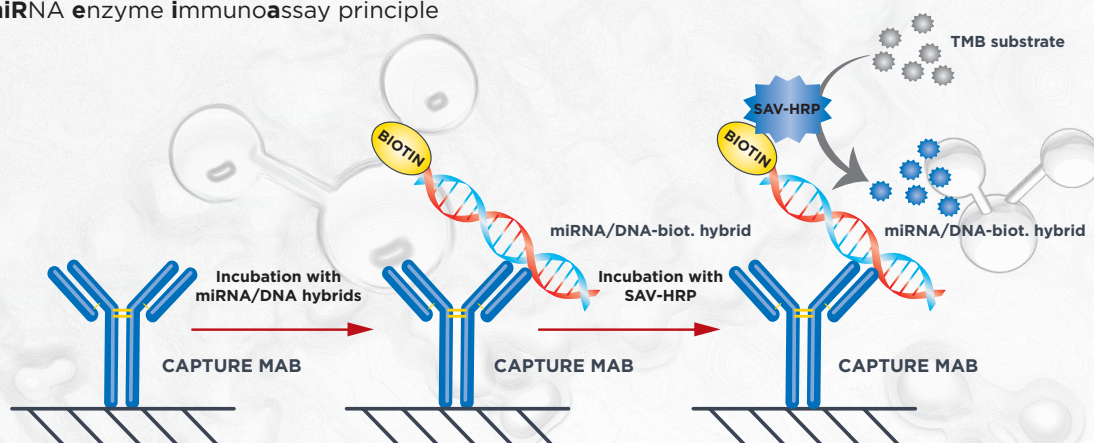
20+ miREIA kits are currently available. See all on www.biovendor.com/mirna

Featured product: hsa-miR-21-5p miREIA kit

- Typical onco-miRNA. It modulates the expression of multiple cancer-related target genes
- Also highly expressed in the cardiovascular system
- Crucial role in vascular smooth muscle cell proliferation and apoptosis, cardiac cell growth and death, calcific aortic valve disease and cardiac fibroblast functions

Application	Whole blood
Calibration range	12.5 - 0.39 amol/ μ l
Limit of detection	0.13 amol/ μ l
Spiking Recovery	101.3%
Dilution Linearity	99.2%

miREIA - miRNA enzyme immunoassay principle



With 30 years of experience, BIOZOL is your high-capacity distributor for biomedical research and diagnostic products on the German market. Since our founding in May 1989, we have had one clear goal: to provide the best possible service for our customers within the research and diagnostic industry. This includes educated scientific advice, a high product variety and quality with over 17 million products from over 100 selected suppliers worldwide.

With our BIOZOL Basics line, we provide you with basic and supplementary lab reagents at the best prizes.

Agarose gel electrophoresis

Agarose gel electrophoresis is a standard method used in molecular biology to separate a mixed population of macromolecules such as nucleic acids or proteins. It allows separation of proteins by charge and/or size, and DNA and RNA fragments by length. With our JB ELITE reagents we provide you with everything you need for your agarose gel electrophoresis.

JB ELITE Agarose tablets

It is now easier than ever to prepare an Agarose gel!

Save your time and effort with our range of unique, Elite Agarose Tablets:

- Prepare your gel in minutes: with only water (3-in-1 tablets) or running buffer (2-in-1 and agarose tablets)
- Ready-to-Use tablet format: No messy weighing and improved gel-to-gel reproducibility
- Ultrapure Agarose: High resolution of DNA fragment with low background

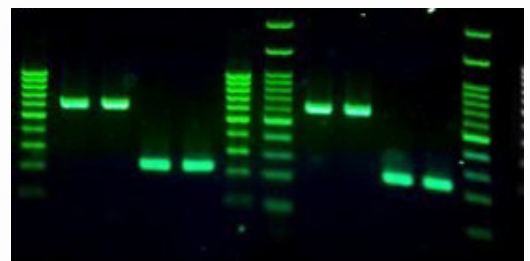
Name	Product Code
Agarose tablets, 100 pcs	BZL-JB-E-AG-100
2-in-1 Agarose tablets, 100 pcs	BZL-JB-E-2in1-100
3-in-1 TAE Agarose tablets, 75 pcs	BZL-JB-E-3in1-TAE
3-in-1 TBE Agarose tablets, 75 pcs	BZL-JB-E-3in1-TBE

JB ELITE Magnite Green DNA Stain

It is now safer than ever to stain your gel!

The ELITE Magnite Green DNA stain is a new nucleic acid stain that can be used as a safer alternative to the traditional Ethidium bromide stain for detecting nucleic acids in different gels (agarose, formaldehyde and polyacrylamide gels).

It is as sensitive as Ethidium bromide, and can be used in exactly the same way for gel electrophoresis.

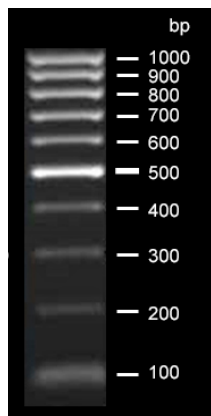


Name	Product Code
Magnite Green DNA stain, 1.0 ml	BZL-JB-E-MGS-100

JB ELITE DNA and protein standards for gel electrophoresis

JB ELITE DNA Ladders

BIOZOL's JB ELITE DNA Standard brings high quality and efficiency to your agarose gel electrophoresis, cost-effective and easy to use.

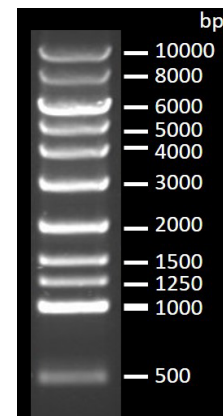


Advantages:

- Accurate sizing with 10 or 11 fragments, resp.
- Ready-to-load onto agarose gel
- Pre-mixed with loading dye
- Clear band separation
- High intensity reference band at 500 bp or 1,000 bp, resp.

Left: JB ELITE 100 bp DNA Ladder on 1.5% Ultra Pure Agarose, 0.5x TBE

Right: JB ELITE 1 kb DNA Ladder on 0.7% Ultra Pure Agarose, 1x TAE



Name	Product Code
JB ELITE 100 bp DNA Ladder, 100 µl	BZL-JB-E-100bp-100
JB ELITE 100 bp DNA Ladder, 500 µl	BZL-JB-E-100bp-500
JB ELITE 100 bp DNA Ladder, 5 x 500 µl	BZL-JB-E-100bp-2500
JB ELITE 1 kb DNA Ladder, 100 µl	BZL-JB-E-1KB-100
JB ELITE 1 kb DNA Ladder, 500 µl	BZL-JB-E-1KB-500
JB ELITE 1 kb DNA Ladder, 5 x 500 µl	BZL-JB-E-1KB-2500

JB ELITE Prestained Protein Ladder

BIOZOL's JB ELITE Pre-Stained Protein Ladder is a high-quality, cost-effective solution to analyze protein expression levels by Western blot. Composed of ten pre-stained proteins, carefully selected to provide the breadth of molecular weight coverage researchers require, the JB ELITE Pre-Stained Protein Ladder offers many advantages:

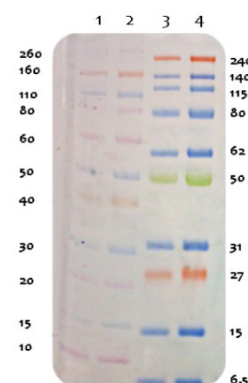
- High-intensity, three-colour molecular weight determination
- Ultra-clear and expanded molecular weight range (6.5 - 270kDa)
- Clear separation for high molecular weight proteins
- Up to 100% electroblot transfer efficiency (Qamar S, CIMR, Cambridge)

Lane 1 & 2: Novex Sharp (ThermoFisher) 5 µl & 10 µl

Lane 3 & 4: JB ELITE Protein Ladder 5 µl & 10 µl

Samples were run on a 4-12% Bis-Tris gel with MES buffer and stained with Coomassie

(Data provided by Qamar S, CIMR, 2018).



Name	Product Code
JB ELITE Pre-stained Protein Ladder, 0.5 ml (2 x 0.25 ml)	BZL-JB-EPL-500
JB ELITE Pre-stained Protein Ladder, 2.5 ml (10 x 0.25 ml)	BZL-JB-EPL-2500



Chromatrap

The Better Way to ChIP

Chromatrap® is here to shake up the world of chromatin immunoprecipitation (ChIP) by offering researchers a new way of performing ChIP. Our goal is to enable the advancement of epigenetic research through our revolutionary bead-free ChIP technology (that's right, no beads). This new technology was created to overcome common challenges that researchers encounter when performing standard ChIP assays.

By eliminating the use of magnetic or agarose beads, Chromatrap has been able to develop a quick, easier and even more sensitive ChIP assay compared to current bead-based ChIP kits available. With more researchers looking for higher sensitivities for the detection of the binding of histone modifications and transcription factors, Chromatrap offers a range of products designed for an easy workflow with superior selectivity and specificity from the smallest quantity of starting material.

Features of Chromatrap

Best for Sensitivity

Correctly orientated proteins for maximum chromatin-antibody binding and capture

Perfect for Low Samples

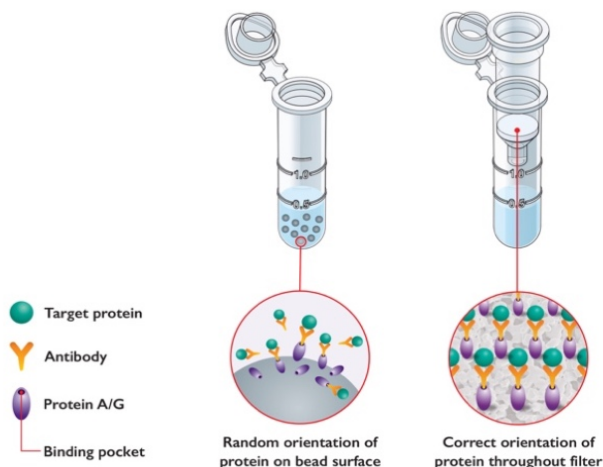
ChIP from as little as 1000 cells

ChIP in 5 Hours

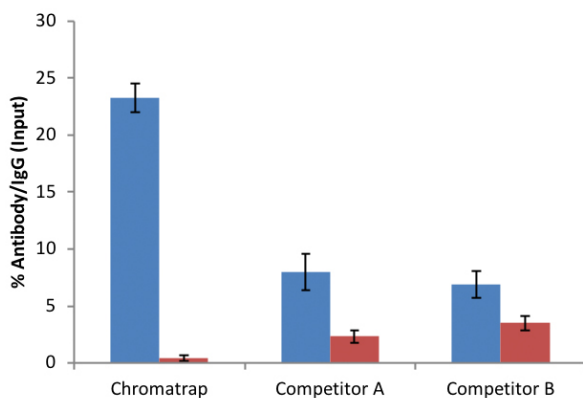
No lengthy blocking or overnight steps

Quality Sequencing Data

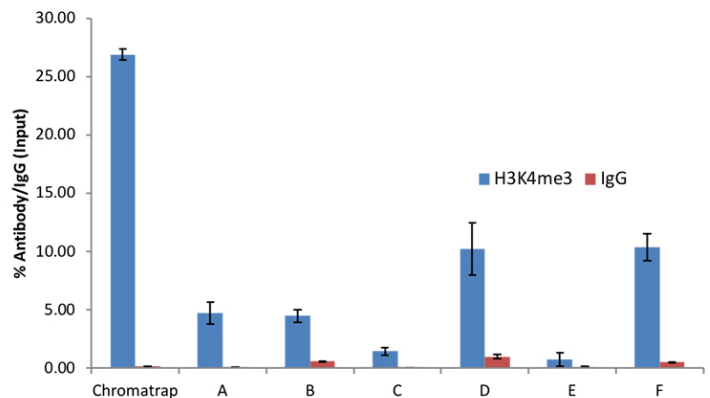
Greater than 95% uniquely mapped reads for transcription factors and histone modifications



The best sensitivity from as little as 1000 cells



Superior target enrichment from 1µg chromatin



www.chromatrap.com



The Better Way to ChIP

Chromatrap® utilises a unique filter-based technology in parallel with Next Generation Sequencing (NGS) to deliver a sensitive ChIP-seq protocol from small cell numbers and low chromatin concentrations.

Advantages of Chromatrap® ChIP-seq

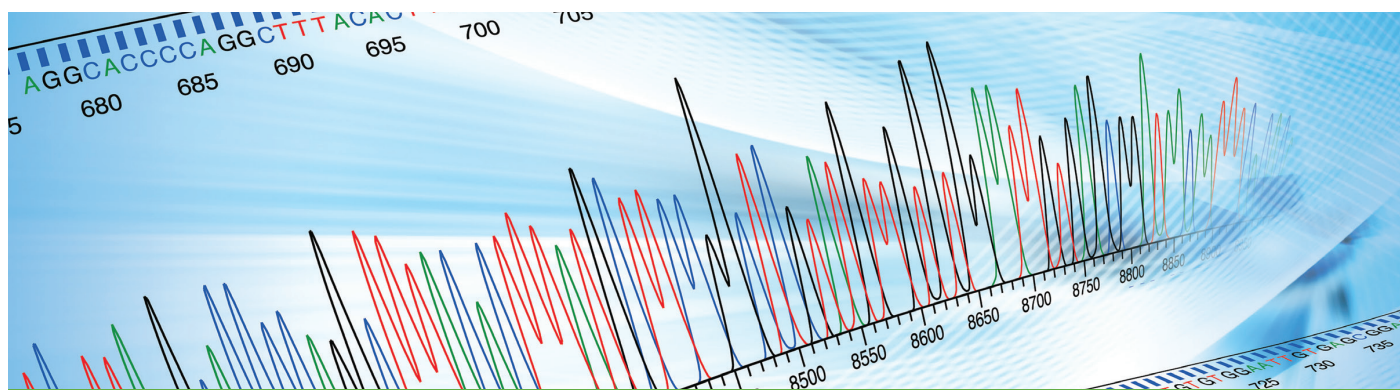
- ChIP-seq with as little as 1000 cells or 50 mg tissue
- ChIP-seq from as low as 500 ng up to 50 µg of chromatin
- No sample loss as sample captured and retained on filter until elution
- NGS quality DNA from a single IP without the need to pool samples
- Compatible with downstream qPCR, sequencing and mass spectrometry
- Process 96 samples in parallel on a single multi well plate

Product Number	Product Name	Quantity
500189	Chromatrap® ChIP-seq Pro A	24
500190	Chromatrap® ChIP-seq Pro G	24
500214	Chromatrap® HT ChIP-seq Pro A	1 x 96
500215	Chromatrap® HT ChIP-seq Pro G	1 x 96
500191	Chromatrap® Enzymatic ChIP-seq Pro A	24
500192	Chromatrap® Enzymatic ChIP-seq Pro G	24
500216	Chromatrap® HT Enzymatic ChIP-seq Pro A	1 x 96
500217	Chromatrap® HT Enzymatic ChIP-seq Pro G	1 x 96
500235	Chromatrap® FFPE ChIP -seq Pro A	24
500236	Chromatrap® FFPE ChIP-seq Pro G	24
500237	Chromatrap® Native ChIP-seq Pro A	24
500238	Chromatrap® Native ChIP -seq Pro G	24
500264	Chromatrap® UniqSeq kit Pro A	24
500265	Chromatrap® UniqSeq kit Pro G	24
500266	Chromatrap® UniqSeq Enzymatic Pro A	24
500267	Chromatrap® UniqSeq Enzymatic Pro G	24
500279	Chromatrap® <i>Drosophila</i> ChIP-seq kit Pro A	24
500275	Chromatrap® <i>Drosophila</i> ChIP-seq kit Pro G	24
500276	Chromatrap® <i>Drosophila</i> UniqSeq kit Pro A	24
500277	Chromatrap® <i>Drosophila</i> UniqSeq kit Pro G	24

Visit us at www.chromatrap.com to see our full range of products or get in touch at support@chromatrap.com

Who are Chromatrap?

Chromatrap® is a brand of Porvair Sciences Ltd. with R&D and production laboratories based in the UK. The potential of the filter-based technology was noticed by our university partners which led to the development of a unique and diverse product range. With over 30 publications and growing, Chromatrap is leading the way of making ChIP assays easier, faster and more sensitive. We pride ourselves in our technical and customer support and happy to assist new and current customers.



EnzSAP™ PCR Clean-up Reagent



Simple 15-minute protocol with minimal hands-on time

- **Add directly to PCR product**
- **Degrades excess primers and completely inactivates dNTPs**

Ideal for sequential enzymatic reactions

- **No need to change reaction buffer**

Developed for use with robotic pipettors

- **Automatable solution for high volume labs**

100% Sample Recovery

- **No loss of valuable samples**

EnzSAP can be added directly to the PCR amplicons using a simple 15-minute protocol:

- Transfer 5 µL of a finished PCR reaction to a new micro tube.
- Add 2 µL of EnzSAP
- Incubate at 37°C for 5 minutes
- Heat inactivate at 80°C for 10 minutes

EnzSAP eliminates the need for tedious gel, column, or magnetic bead purifications with no loss of precious samples since all steps take place in a single tube, and double-stranded PCR amplicons are left completely intact, irrespective of their size.

EnzSAP is ideal for use with robotic pipettors and can be added directly to PCR reactions in 96- or 384-well plates.

EnzSAP provides a complete purification workflow for Sanger DNA sequencing when used in combination with our Optima DTR™ BigDye® Terminator Removal products.

CATALOG	PRODUCT DESCRIPTION	REACTIONS
EnzSAP-500	EnzSAP™ PCR Clean-up Reagent	500

Dye Terminator Removal (DTR)

Performa® DTR und Optima® DTR Gel Filtration

Performa DTR (Dye Terminator Removal) Gel Filtration Cartridges are 800 μ L spin columns assembled in a 1.5 mL microcentrifuge tube. These columns provide optimal performance for removal of unincorporated BigDye® v1.1, v3.0, and v3.1 and other dye terminators, dNTPs, salts, and other low molecular weight materials from sequencing reactions. These columns also remove DNA primers and fragments up to 20 bases, buffers, and nucleotides labeled with biotin, isotopes, and other assorted markers.

The spin columns are pre-packed with a fully hydrated matrix to afford optimal handling and performance characteristics. To minimize the potential for interference with sequencing applications, no preservatives, salts, or buffers are used in the preparation of these columns.

Optima DTR Plates consist of 800 μ L volume columns in a standardized array.



CATALOG	PRODUCT DESCRIPTION	UNIT
98780	Performa DTR Gel Filtration Cartridges	36 Cartridges
42453	Performa DTR Gel Filtration Cartridges	108 Cartridges
8WELL-1	Optima DTR™ 8-Well Strip Kit	96 Samples
45637	Optima DTR™ 96-Well Plate Kit	2 Plates
17946	Optima DTR™ 96-Well Plate Kit	10 Plates
45312	Optima DTR™ 384-Well Plate Kit	2 Plates
17455	Optima DTR™ 384-Well Plate Kit	10 Plates

GENE DELIVERY & EXPRESSION

LENTIVIRUS, PIGGYBAC,
MINICIRCLES, AND MORE

Cold Fusion Cloning Kit with Competent Cells

Quick and easy ligation-free cloning

Fast, easy, and efficient, SBI's Cold Fusion Cloning is an excellent choice for any cloning project. Whether you're assembling multiple fragments of DNA or simply adding an insert or gBlock® to a vector, the Cold Fusion Cloning Kit will take you to transformation-ready DNA in a single step—just incubate your DNA fragment(s) with linearized vector for five minutes at room temperature and ten minutes on ice. A typical cloning reaction will deliver a successful cloning rate of more than 90%.

- **Easy** - a phosphatase-free and ligation-free system that eliminates the need for specific restriction enzymes
- **Efficient** - typically achieve >90% positive clones
- **Versatile** - add any insert into any site in any vector using manual or automated workflows

DESCRIPTION	SIZE	CATALOG NUMBER
Cold Fusion Cloning Kit with Competent Cells	10 Reactions	MC010B-1
Cold Fusion Cloning Kit with Competent Cells – 96-well format	10 Reactions	MC096B-1
Cold Fusion Cloning Kit with Competent Cells	20 Reactions	MC100B-1
Cold Fusion Cloning Kit with Competent Cells	50 Reactions	MC101B-1

CRISPR/Cas9

GENOME ENGINEERING THAT CATALYZES CHANGE

Use any of our CRISPR/Cas9
Systems for any genome
engineering application:

- Gene knock-outs
- Gene knock-ins
- Gene editing
- Gene tagging

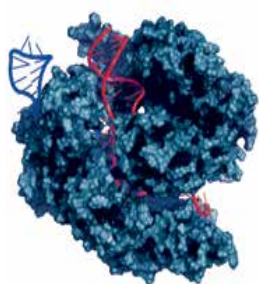
EFFICIENT, EASY-TO-USE CRISPR/Cas9 SYSTEMS

With a focus on simplifying genome engineering, the team at SBI has created a wide range of options for delivering both Cas9 protein and gRNA. Human codon-optimized and with your choice of different mammalian promoters, you can deliver wild-type or mutant Cas9 and custom gRNA as plasmids, mRNA, lentivirus vectors, and adeno-associated virus (AAV) vectors.

Speeding your multi-gene CRISPR/Cas9 projects

With the **PrecisionX™ Multiplex gRNA Cloning Kit**, you can place multiple gRNAs into a single construct for faster, more efficient genome editing at multiple genomic locations. Compatible with any of SBI's All-in-one Cas9 SmartNuclease Plasmids and gRNA cloning constructs as well as other popular Cas9/gRNA cloning vectors, such as pX330, pX335, pX458, and pX459, the Multiplex gRNA Cloning Kit is an easy-to-use tool for accelerating your CRISPR/Cas9 projects.

- Edit multiple loci at once, save time and reagents
- Easily generate multi-cistronic gRNA expression constructs
- Ideal for Cas9 Nickase applications
- Great for studying signaling pathways



DESCRIPTION	SIZE	CATALOG NUMBER
PrecisionX Multiplex gRNA Cloning Kit	10 Reactions	CAS9-GRNA-KIT

3Helix

3Helix has developed a series of proprietary collagen hybridizing peptides (CHP) that directly target the damaged collagen molecule. Damage to collagen is a strong indication of connective tissue injury, as well as a variety of diseases involving inflammation and abnormal tissue remodeling, such as cancer, myocardial infarction, arthritis, osteoporosis, and fibrosis. However, targeting damaged collagen is difficult with conventional technologies. In addition to providing CHP as a research tool for laboratory use in academia and industry, 3Helix is advancing its compounds to enable new pathways to achieving diagnostic and therapeutic objectives.



AAT Bioquest is a US-based bioreagents company that specializes in assay technologies. AAT Bioquest's reliable, high performance products enable life science researchers to better understand biochemistry, immunology, cell biology and molecular biology. Their catalog of over 5000 items includes product lines such as Fluo-8®, Cal-520®, Cell Meter™, Amplite™, CytoTrace™ and CytoTell™, brands that have garnered recognition and praise in the life science research community.



The Italian company Clonit develops innovative and reliable analytical methods in the field of in vitro diagnostics using molecular biology techniques. The systems are useful for human diagnostic with particular attention to the detection of viral, bacteria and protozoa infections, genetic mutations and oncological diseases. The product range comprises Realtime PCR kits for detection of infectious diseases, Standards and controls for Realtime PCR and Diagnostic rapid tests.



Empire Genomics is a clinical molecular diagnostics company, which designs, manufactures and distributes more than one million clinical and custom labeled molecular probes enabling hundreds of leading global clinical laboratories, biotechnology organizations and academic institutions to advance biomarker research, accelerate diagnoses and improve personalized treatment options for patients battling cancer and other complex diseases. The portfolio concentrates on high quality FISH and CISH probes. DIG and Biotin labeled probes can be manufactured for all standard FISH/CISH offerings.



Founded in 2002, GenScript has exponentially grown to become a global biotech company and the largest gene synthesis supplier in the USA. GenScript's products have applications in both pharmaceutical industries and academia to help improve the quality of human life.

During their tenure, GenScript has developed a state of the art product line for molecular biology, protein purification and protein analysis products.

For molecular biology applications, GenScript's GenBuilder™ Cloning kits have surpassed all other recombination-based cloning kits in cloning efficiency and ease of use.



MBL International Corporation (MBLI) is a leading life science company focused on providing high quality, innovative, solutions-based products for both life science research and clinical diagnostics. MBLI develops, and manufactures a broad portfolio of monoclonal and polyclonal antibodies, MHC tetramers, fluorescent and recombinant proteins and ELISA kits for research related to allergy, apoptosis, autophagy, cancer, epigenetics, immunology, and neuroscience. For molecular biology, MBLI also provides CoralHue™ fluorescent protein vectors, and GeneBlocker™ pGB siRNA vectors.



Founded in 2003 by three internationally recognized experts in molecular delivery systems, gene therapy and vaccines, OZ Biosciences' mission is to provide cutting-edge transfection and transduction reagents to enable life sciences researchers to achieve outstanding success. With a strong focus on technologies to deliver biomolecules for in vitro and in vivo applications, the company has established a strong position in the field. Included in Oz Biosciences' comprehensive portfolio are various product lines designed to facilitate specific molecular delivery applications, incl. Magnetofection™, Lipofection, transduction tools, and 3D transfection.

Quality at the best price!

4 pipette bundle pack:

(0.1-2 µl / 2-20 µl / 20-200 µl / 100-1000 µl)

Article no.: ABM-B254

€299

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- Thumb-friendly spring system
- Colour-coded labeling system to distinguish capacity volume ranges
- Easy calibration with included tool
- Comfortable and lightweight to reduce hand strain
- Able to pipette liquids of varying densities



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(i.e. 0800-024 69 65)

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