



Reagents for Molecular Biology Research

P r o d u c t
C a t a l o g u e

2022

www.vazymebiotech.com | global@vazyme.com

Science and technology Make a Healthier Life



2012
2022

Overview of Vazyme

Ino**Va**tion in Enzyme Technology

Since the establishment in 2012, Vazyme has been dedicated to our mission "Science and Technology Make a Healthier Life" to focus on technology innovation and continuously expand the application fields of core technologies in life science. Currently, we have a portfolio of over 200 kinds of genetic engineering recombinases, more than 1,000 kinds of high-performance antigens, monoclonal antibodies and other key raw materials, in addition to over 600 finished products.

As a R&D based company, we have been holding ourselves to the highest standards of ethics, accountability and professionalism. Our global research and development operations make sure we could provide quality products, solutions, and services locally to our customers, and more importantly, to do as much as it can to meet the unmet customers' needs. For now, we are present in more than 60 countries and regions worldwide to get close to local customers.



Development of Core Technology

Since its establishment, Vazyme has always adhered to the business philosophy—— R&D is the core. Through years of relentless efforts, Vazyme has achieved a lot in biomedical science. For instance, we have developed various kinds of biological preparations, covering but not limited to high-throughput sequencing library series, PCR, qPCR, molecular clone, reverse transcription and 8 sets of POCT diagnostic reagents used to detect heart and cerebral vessels, inflammation, sound child rearing, and gastric function, etc. Now Vazyme has expanded the customer portfolio to a wider range, including scientific research institutions, high-throughput sequencing service companies, molecular diagnostic reagent manufacturers, pharmaceutical companies, CRO companies, hospitals and other medical institutions.

Innovation & Reseration of Talents

Based on self-established core technologies, Vazyme has built an independent generic technology platform to meet the needs of large-scale research and development of products quickly and efficiently. Now we have over 200 kinds of genetic engineering recombinases, more than 1000 kinds of high-performance antigens, mAb and other critical materials. In addition, Vazyme owns above 500 terminal products that are widely applied in science research, high-throughput sequencing, IVD, pharmaceutical and vaccine research development, animal quarantine, etc.

Vazyme's powerful R&D strength is supported by a strong research and innovation team with over 400 multi-disciplinary experts majoring in molecular biology, enzymology, immunology, bioinformatics, organic chemistry and materials science, etc., more than half of which have a master's degree or above. **We have been mentioned in CNS and sub-journals over 180 times and more than 1500 times in various other journals. The total citation of papers so far has reached to 10000.**

Staying True to the Original Aspiration & Fulfill the Mission

On the way to deepen and broaden the entire product and technology chain, Vazyme stays true to the original aspiration —— "Science and Technology Make a Healthier Life", explores new methods for disease discovery, diagnosis, prevention and treatment, and provides quality products and professional services to creat value for clients.

In the past few years, Vazyme has actively engaged in the construction of public health programs, and played a vital role in fighting against African swine fever and COVID-19. **So far we have business cooperation with more than 300 IVD kit manufacturers by providing raw materials and premixes for over 800 million population covering more than 30 countries.** In the future, we will continue to contribute to the development of biosafety, and help mankind to overcome the threats posed by major infectious diseases, tumors, and autoimmune diseases!

DR864

Product Catalogue

Contents

Reagents for Molecular Biology Research

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Genome Editing

01 Product List

PCR

● High-Fidelity PCR

Product Name	Size	Cat No.#
Hot Phanta Max Super-Fidelity DNA Polymerase	100 U / 500 U / 1,000 U	P505-d1/d2/d3
2 × Phanta Max Master Mix	1 ml / 5 ml / 15 ml	P515-01/02/03
2 × Phanta Max Master Mix (Dye Plus)	1 ml / 5 ml / 15 ml	P525-01/02/03
2 × Phanta Flash Master Mix	1 ml / 5 ml / 15 ml	P510-01/02/03
2 × Phanta Flash Master Mix (Dye Plus)	1 ml / 5 ml / 15 ml	P520-01/02/03

● Conventional PCR

Product Name	Size	Cat No.#
Taq DNA Polymerase (Mg ²⁺ plus Buffer)	1,000 U / 5,000 U / 10,000 U	P101-01/02/03
Taq DNA Polymerase (Mg ²⁺ free Buffer)	1,000 U / 5,000 U / 10,000 U	P102-01/02/03
Taq DNA Polymerase (Mg ²⁺ plus Buffer, with dNTP)	1,000 U / 5,000 U / 10,000 U	P101-d1/d2/d3
2 × Taq Master Mix	5 ml / 15 ml / 50 ml	P111-01/02/03
2 × Taq Master Mix (Dye Plus)	5 ml / 15 ml / 50 ml	P112-01/02/03
2 × Taq Master Mix for PAGE	5 ml / 15 ml / 50 ml	P113-01/02/03
Hot 3G Taq Master Mix for PAGE (Red Dye)	5 ml / 50 ml	P115-01/02
Green Taq Mix	5 ml / 15 ml / 50 ml	P131-01/02/03

● High-Yield PCR

Product Name	Size	Cat No.#
2 × Taq Plus Master Mix	5 ml / 15 ml / 50 ml	P211-01/02/03
Hot 2 × Taq Plus Master Mix II (Dye Plus)	5 ml / 15 ml / 50 ml	P213-01/02/03

● Long-Fragment PCR

Product Name	Size	Cat No.#
Vazyme LAmp DNA Polymerase	125 U / 500 U	P301-01/02
2 × Vazyme LAmp Master Mix	1 ml / 5 ml / 15 ml	P311-01/02/03
2 × Vazyme LAmp Master Mix (Dye Plus)	1 ml / 5 ml / 15 ml	P312-01/02/03

Direct PCR

Product Name	Size	Cat No.#
One Step Mouse Genotyping Kit	200 rxn	PD101-01
One Step U* Probe Mouse Genotyping Kit	200 rxn	PD104-01
Blood Direct PCR Kit V2	50 rxn / 200 rxn	PD103-01/02

Rapid PCR

Product Name	Size	Cat No.#
	5 ml / 15 ml	P222-01/02
Hot 2 × Rapid Taq Master Mix	50 ml (50 x 1 ml)	P222-03
	50 ml (10 x 5 ml)	P222-04

Multiplex PCR

Product Name	Size	Cat No.#
Multiplex PCR Kit	50 rxn / 200 rxn / 1,000 rxn	PM101-01/02/03

Hot-Start PCR

Product Name	Size	Cat No.#
Hot AceTaq DNA Polymerase	250 U / 1,000 U / 3,000 U	P401-d1/d2/d3
2 × AceTaq Master Mix	1 ml / 5 ml / 15 ml	P411-01/02/03
2 × AceTaq Master Mix (Dye Plus)	1 ml / 5 ml / 15 ml	P412-01/02/03
Champagne Taq antibody	500 U	P121-01
Hot Champagne Taq DNA Polymerase	500 U (2.5 / 5 / 10 U/μl)	P122-d1/d2/d3
Hot Taq Pro HS DNA Polymerase	250 U / 1,000 U / 5,000 U	N101-01/02/03
Taq Pro HS Master Mix	500 rxn / 1,500 rxn (20 μl/rxn)	N111-01/02
Taq Pro HS U* Master Mix	500 rxn / 1,500 rxn (20 μl/rxn)	PN112-01/02

PCR-Related

Product Name	Size	Cat No.#
Hot PCR Enhancer	500 μl	P021-01
dNTP Mix (10 mM each)	1 ml / 5 ml	P031-01/02
dNTP Mix (2.5 mM each)	1 ml / 5 ml	P032-01/02
Heat-labile UDG	100 U / 500 U	P051-01/02
RNase-free ddH ₂ O	5 ml	P071-01
10 × DNA Loading Buffer	1 ml	P022-01

Cloning/Mutagenesis

Fast Cloning

Product Name	Size	Cat No.#
ClonExpress II One Step Cloning Kit	25 rxn / 50 rxn	C112-01/02
ClonExpress MultiS One Step Cloning Kit	10 rxn / 25 rxn	C113-01/02
Hot ClonExpress Ultra One Step Cloning Kit	25 rxn / 50 rxn	C115-01/02

Rapid Site-Directed Mutagenesis

Product Name	Size	Cat No.#
Mut Express II Fast Mutagenesis Kit V2	10 rxn / 25 rxn (20 μl/rxn)	C214-01/02
Mut Express MultiS Fast Mutagenesis Kit V2	10 rxn / 25 rxn (20 μl/rxn)	C215-01/02

Traditional/TA Cloning

Product Name	Size	Cat No.#
T4 DNA Ligase	40,000 U	C301-01
Hot 5 min Universal Ligation Mix	50 rxn / 100 rxn (10 μl/rxn)	C311-01/02

TOPO Cloning

Product Name	Size	Cat No.#
Hot 5 min TA/Blunt-Zero Cloning Kit	25 rxn / 50 rxn (5 μl/rxn)	C601-01/02

Nucleic Acid Electrophoresis

GelRed Nucleic Acid Stain

Product Name	Size	Cat No.#
Hot Ultra GelRed Nucleic Acid Stain (10,000 ×)	0.5 ml / 5 ml / 50 ml	GR501-01/02/03

DNA Marker

Product Name	Size	Cat No.#
DL2000 Plus DNA Marker	250 µl / 500 µl	MD101-01/02
DL5000 DNA Marker	250 µl / 500 µl	MD102-01/02
DL15000 DNA Marker	250 µl / 500 µl	MD103-01/02
100 bp DNA Ladder	250 µl / 500 µl	MD104-01/02

Reverse Transcription

Conventional RT-PCR

Product Name	Size	Cat No.#
HiScript II Reverse Transcriptase	2,000 U / 10,000 U	R201-01/02
HiScript III Reverse Transcriptase	10,000 U	R302-01
HiScript II 1st Strand cDNA Synthesis Kit	50 rxn / 100 rxn (20 µl/rxn)	R211-01/02
Hot HiScript III 1st Strand cDNA Synthesis Kit (+gDNA wiper)	50 rxn / 100 rxn (20 µl/rxn)	R312-01/02
M-MLV(H-) Reverse Transcriptase	10,000 U	R021-01
Murine RNase inhibitor	2,000 U / 10,000 U / 20,000 U	R301-01/02/03

RT-qPCR SuperMix

Product Name	Size	Cat No.#
HiScript II Q RT SuperMix for qPCR	100 rxn (20 µl/rxn)	R222-01
HiScript II Q RT SuperMix for qPCR (+gDNA wiper)	100 rxn (20 µl/rxn)	R223-01
HiScript II Q Select RT SuperMix for qPCR	100 rxn (20 µl/rxn)	R232-01
HiScript II Q Select RT SuperMix for qPCR (+gDNA wiper)	100 rxn (20 µl/rxn)	R233-01
Hot HiScript III RT SuperMix for qPCR (+gDNA wiper)	100 rxn (20 µl/rxn)	R323-01
Hot HiScript III All-in-one RT SuperMix Perfect for qPCR	100 rxn (20 µl/rxn)	R333-01

One-Step RT-PCR

Product Name	Size	Cat No.#
HiScript II One Step RT-PCR Kit	50 rxn (50 µl / rxn)	P611-01
HiScript II One Step RT-PCR Kit (Dye Plus)	50 rxn (50 µl / rxn)	P612-01

5' RACE & 3' RACE Amplification

Product Name	Size	Cat No.#
10 × Universal Primer Mix(UPM)	100 rxn (50 µl/rxn)	RA102-01
HiScript-TS 2 × PCR Mix	40 rxn / 200 rxn (50 µl/rxn)	RA103-01/02

Single Cell Sequence Amplification

Product Name	Size	Cat No.#
Single Cell Sequence Specific Amplification Kit	200 rxn	P621-01

miRNA Reverse Transcription

Product Name	Size	Cat No.#
miRNA 1st Strand cDNA Synthesis Kit (by stem-loop)	50 rxn / 100 rxn (20 µl/rxn)	MR101-01/02

qPCR

qPCR Master Mix (SYBR-Green)

Product Name	Size	Cat No.#
AceQ Universal SYBR qPCR Master Mix	500 rxn / 2,500 rxn (20 µl/rxn)	Q511-02/03
AceQ qPCR SYBR Green Master Mix	500 rxn / 2,500 rxn (20 µl/rxn)	Q111-02/03
Hot Taq Pro Universal SYBR qPCR Master Mix	500 rxn / 2,500 rxn (20 µl/rxn)	Q712-02/03

● qPCR Master Mix (Probe)

Product Name	Size	Cat No.#
AceQ qPCR Probe Master Mix	500 rxn / 2,500 rxn (20 µl/rxn)	Q112-02/03
Hot AceQ Universal U ⁺ Probe Master Mix V2	500 rxn / 2,500 rxn (20 µl/rxn)	Q513-02/03
Hot ChamQ Geno-SNP Probe Master Mix	500 rxn / 2,500 rxn (20 µl/rxn)	Q811-02/03
Animal Detection U ⁺ Probe Master Mix	400 rxn / 800 rxn (25 µl/rxn)	QV110-01/02
Taq Pro HS Probe Master Mix	500 rxn / 2,500 rxn (20 µl/rxn)	QN111-01/02
Taq Pro HS U ⁺ Probe Master Mix	500 rxn / 2,500 rxn (20 µl/rxn)	QN112-01/02
Taq Pro HS Universal Probe Master Mix	500 rxn / 2,500 rxn (20 µl/rxn)	QN113-01/02
Taq Pro HS Universal U ⁺ Probe Master Mix	500 rxn / 2,500 rxn (20 µl /rxn)	QN114-01/02

● One-Step RT-PCR Mix

Product Name	Size	Cat No.#
HiScript II One Step qRT-PCR SYBR Green Kit	250 rxn (20 µl/rxn)	Q221-01
HiScript II One Step qRT-PCR Probe Kit	250 rxn (20 µl/rxn)	Q222-01
HiScript II U ⁺ One Step qRT-PCR Probe Kit	250 rxn (20 µl/rxn)	Q223-01
Hot HiScript III U ⁺ One Step qRT-PCR Probe Kit	100 rxn/1000 rxn/5000 rxn (30 µl/rxn)	Q225-01/02/03
Hot HiScript III U ⁺ One Step qRT-PCR Probe 5x Master Mix	100 rxn/1000 rxn/10000 rxn (20 µl/rxn)	Q611-01/02/03

● miRNA qPCR

Product Name	Size	Cat No.#
miRNA Universal SYBR qPCR Master Mix	125 rxn / 500 rxn (20 µl/rxn)	MQ101-01/02

Genome Editing

● Genome Editing

Product Name	Size	Cat No.#
Cas9 Nuclease	50 pmol / 250 pmol	EN301-01/02
T7 Endonuclease I	50 pmol / 250 pmol	EN303-01/02

● In Vitro Transcription

Product Name	Size	Cat No.#
T7 High Yield RNA Transcription Kit	50 rxn / 100 rxn	TR101-01/02
Hot T7 RNAi Transcription Kit	25 rxn / 50 rxn	TR102-01/02

Nucleic Acid Isolation

● RNA Isolation (Column)

Product Name	Size	Cat No.#
Hot FastPure Cell / Tissue Total RNA Isolation Kit V2	50 rxn	RC112
FastPure Cell / Tissue Total RNA Isolation Kit	50 rxn	RC101
Hot FastPure Plant Total RNA Isolation Kit (Polysaccharides & Polyphenolics-rich)	50 rxn	RC401

● DNA Isolation (Column)

Product Name	Size	Cat No.#
Hot FastPure Blood / Cell / Tissue / Bacteria DNA Isolation Mini Kit	50 rxn / 200 rxn	DC112-01/02
FastPure Blood DNA Isolation Mini Kit V2	50 rxn / 200 rxn	DC111-01/02
FastPure Cell / Tissue DNA Isolation Mini Kit	100 rxn	DC102
FastPure Bacteria DNA Isolation Mini Kit	100 rxn	DC103
FastPure Plant DNA Isolation Mini Kit	50 rxn	DC104
Lysozyme	200 mg	DE103-01

● Tissue Stabilizer

Product Name	Size	Cat No.#
RNA Keeper Tissue Stabilizer	100 ml	R501

● Exosome Isolation

Product Name	Size	Cat No.#
Hot VEX Exosome Isolation Reagent (from cell culture media)	50 ml	R601
VEX Exosome Isolation Reagent (from serum)	10 ml	R602
VEX Exosome Isolation Reagent (from plasma)	10 ml	R603

Cell Biology/Protein Research

Cell Counting

Product Name	Size	Cat No.#
Hot CCK-8 Cell Counting Kit	500 rxn / 1,000 rxn(10 µl/rxn)	A311-01/02

Dual Luciferase Reporter Assay

Product Name	Size	Cat No.#
Hot Dual Luciferase Reporter Assay Kit	100 rxn(100 µl/rxn)	DL101-01

Mycoplasma

Product Name	Size	Cat No.#
Hot MycoBlue Mycoplasma Detector	20 rxn / 50 rxn	D101-01/02

Protein Marker

Product Name	Size	Cat No.#
Hot 180 kDa Prestained Protein Marker	100 rxn / 500 rxn (5 µl/rxn)	MP102-01/02

Cell Apoptosis Detection

Product Name	Size	Cat No.#
TUNEL FITC Apoptosis Detection Kit	20 rxn / 50 rxn / 100 rxn	A111-01/02/03
Hot TUNEL BrightGreen Apoptosis Detection Kit	20 rxn / 50 rxn / 100 rxn	A112-01/02/03
TUNEL BrightRed Apoptosis Detection Kit	20 rxn / 50 rxn / 100 rxn	A113-01/02/03
Hot Annexin V-FITC/PI Apoptosis Detection Kit	50 rxn / 100 rxn	A211-01/02

Cell Transfection

Product Name	Size	Cat No.#
Exfect Transfection Reagen	1 ml / 4 ml	T101-01/02

BCA Protein Quantification

Product Name	Size	Cat No.#
Hot BCA Protein Quantification Kit	250 rxn / 500 rxn	E112-01/02

Instant Granules

Product Name	Size	Cat No.#
Hot 1 × PBS Instant particles (PH 7.4)	10 × 1L	G101-01
1 × TAE Instant particles (PH 8.3)	10 × 1L	G102-01
1 × TBE Instant particles (PH 8.5)	10 × 1L	G103-01

02 Applications

PCR

● Selection Guide

Applications	Products (Cat.#)	Features	Applicable for
Conventional PCR	3G Taq Master Mix for PAGE (Red Dye) (#P115) Green Taq Mix (#P131)	No 3' → 5' exonuclease activity. Excellent compatibility. Products contain A at 3'-end.	Colony PCR; Large-scale gene identification; TA Cloning for small fragments.
High-Yield PCR	2 × Taq Plus Master Mix (#P211) 2 × Taq Plus Master Mix II (Dye Plus) (#P213)	With fidelity 6-fold higher than Taq. Mixed products with 3'-end blunt or containing A.	PCR that requires some fidelity.
Rapid PCR	2 × Rapid Taq Master Mix (#P222)	Amplification speed: up to 15 sec/kb.	Colony PCR.
Long-Fragment PCR	2 × Vazyme LAmp Master Mix (#P311) 2 × Vazyme LAmp Master Mix (Dye Plus) (#P312)	Efficiently amplify fragments > 20 kb.	Long-fragment amplification.
Hot-Start PCR	Champagne Taq DNA Polymerase (#P122) Taq Pro HS DNA Polymerase (#PN101) Taq Pro HS U+ Master Mix (#PN112)	Excellent specificity. Excellent sensitivity.	Amplification that requires higher sensitivity and specificity; Amplification of genes with low copy or qPCR assay from complex templates (genomic DNA, cDNA).
Multiplex PCR	Multiplex PCR Kit (#PM101)	19-plex PCR in one single reaction.	Detection or typing of pathogens.
Direct PCR	One Step Mouse Genotyping Kit (#PD101) Blood Direct PCR Kit V2 (#PD103)	Easy and fast, without DNA purification.	One step mouse genotyping; Direct PCR from plant tissues; Direct PCR from blood.
High-Fidelity PCR	2 × Phanta Flash Master Mix (#P510) 2 × Phanta Flash Master Mix (Dye Plus) (#P520)	With super fidelity 53-fold higher than Taq; High resistance to PCR inhibitors.	High-fidelity PCR. Amplification of templates with high GC-content; Long-fragment (up to 40 kb) amplification

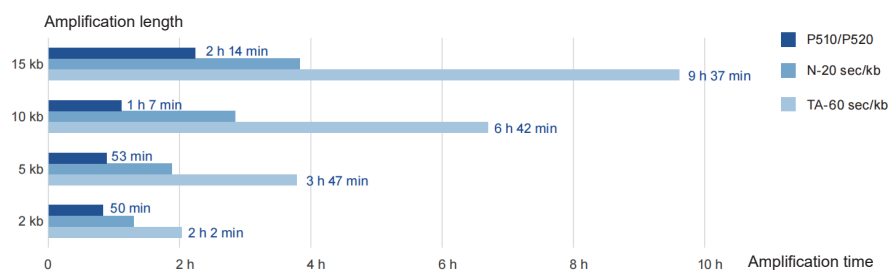
High-Fidelity PCR

- 2 × Phanta Flash Master Mix (#P510)
- 2 × Phanta Flash Master Mix (Dye Plus) (#P520)

Features

- Amplification of fragments within 10 kb can be completed in 1 h.
- 81 × higher fidelity than Taq DNA polymerase.
- PCR products can be directly loaded for electrophoresis with no need for loading buffer.

Validation Data



Amplification speed: for DNA fragments ≤1 kb, 1 sec/kb; ≤10 kb, 4 - 5 sec/kb; >10 kb, 10 sec/kb

Selected Product Citations

- Han X, Zhou Z, Fei L, et al. Construction of a human cell landscape at single-cell level. *Nature*. 2020 May;581(7808):303-309 .IF:43.07
- Liu C, Shen L, Xiao Y, et al. Pollen PCP-B peptides unlock a stigma peptide-receptor kinase gating mechanism for pollination. *Science*. 2021 Apr 9;372(6538):171- 175.IF:41.84

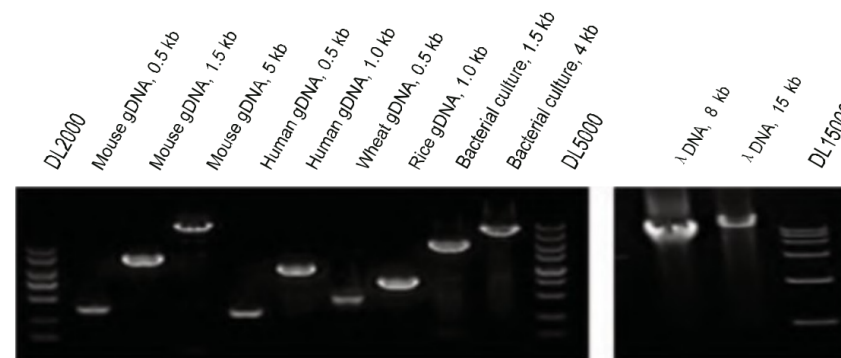
High-Yield PCR

- 2 × Taq Plus Master Mix II (Dye Plus) (#P213)

Features

- Robust performance for high-yield PCR in most primer-template systems.
- Ready-to-use master mix with no need for operations on ice.
- PCR products can be directly loaded for electrophoresis with no need for loading buffer.

Validation Data



2 × Taq Plus Master Mix II (Vazyme, #P213) demonstrated excellent template compatibility. Fragments (0.5 kb to 15 kb) were amplified from genomic DNA (mouse, human, wheat, rice), bacterial culture, and λDNA, respectively. A specific corresponding band was observed in each PCR.

Selected Product Citations

- Zhang X O, Wang H B, Zhang Y, et al. Complementary sequence-mediated exon circularization[J]. *Cell*, 2014, 159(1): 134-147.IF:33.116
- Yuan H, et al. Gyrl-like proteins catalyze cyclopropanoid hydrolysis to confer cellular protection. *Nature Communications*, 2017, 8(1).1485.IF: 12.124

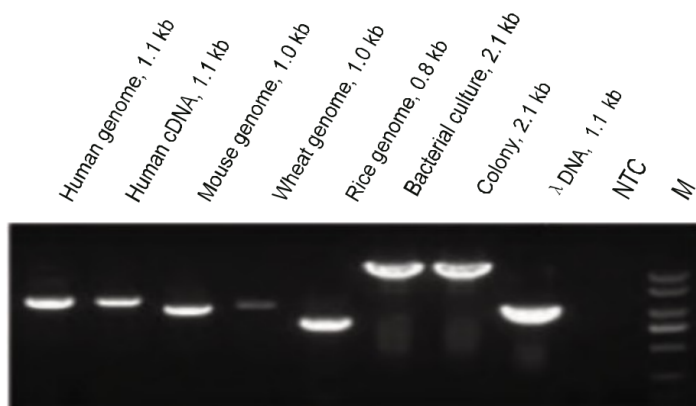
Rapid PCR

2 × Rapid Taq Master Mix (#P222)

Features

- **Rapid:** amplification speed is 15 sec/kb, with an extreme speed of 1 sec/kb for fragments within 1 kb.
- Ready-to-use master mix with no need for operations on ice.
- PCR products can be directly loaded for electrophoresis with no need for loading buffer.
- **Excellent stability:** remains stable after 50 freeze-thaw cycles.

Validation Data



Fragments (1 - 2 kb) was amplified from genomic DNA (human, mouse, wheat, rice), cDNA (human), bacterial culture, colony, and λ DNA, respectively. The extension time was set as 1 sec/kb. 10 μ l of PCR product was loaded for agarose gel electrophoresis. Specific bands were observed.

Selected Product Citations

Zhang B, Wang K B, Wang W, et al. Enzyme-catalysed [6+4] cycloadditions in the biosynthesis of natural products[J]. Nature, 2019, 568(7750): 122-126.IF:41.577

Jin S, Lin Q, Luo Y, et al. Genome-wide specificity of prime editors in plants[J]. Nature Biotechnology, 2021, 39(10): 1292-1299.IF:36.558

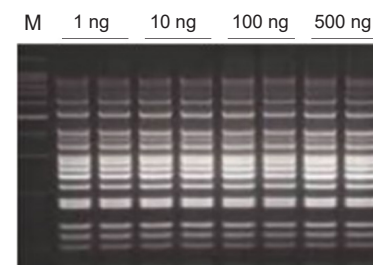
Multiplex PCR

Multiplex PCR Kit (#PM101)

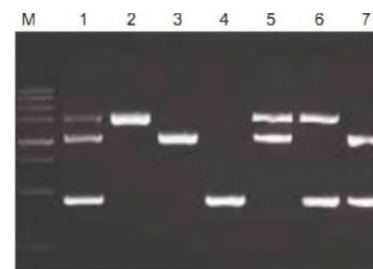
Features

- Multiplex: 19-plex PCR or even higher.
- Excellent target-to-target amplification uniformity and extremely low target preference.
- Highly sensitive amplification from trace amount of genomic DNA (≥ 1 ng).

Validation Data



Uniform amplification coverage of different regions. Human genomic DNA was used as template for 19-plex PCR. The size of the amplicons ranged from 70 bp to 916 bp. The result indicated that Multiplex PCR Kit (Vazyme #PM101) has a uniform amplification coverage of different regions for 1 - 500 ng of template.



The Multiplex PCR Kit showed excellent compatibility with fragment length. Mouse genomic DNA was used as template for amplification of 1.55 kb, 1.07 kb, and 0.45 kb fragments, respectively. The result indicated that Multiplex PCR Kit (Vazyme, #PM101) is compatible with amplicons of various lengths in one single reaction system.

- 1: 3-plex PCR
- 2-4: 1-plex PCR
- 5-7: 2-plex PCR
- M: DL5000 DNA Marker

Cloning / Mutagenesis

● Selection Guide

Applications	Products (Cat.#)	Features	Applicable for
Fast Cloning	ClonExpress Ultra One Step Cloning Kit (#C115) ClonExpress II One Step Cloning Kit (#C112) ClonExpress MultiS One Step Cloning Kit (#C113)	Easy, fast, and efficient. No need to consider the restriction enzyme cutting sites on the inserts. Ligase-independent. Positive Clone Rate > 95%. Efficient cloning of fragments of 50 bp - 10 kb.	Cloning or assembly of 1-5 fragments.
Fast Mutagenesis	Mut Express II Fast Mutagenesis Kit V2 (#C214) Mut Express MultiS Fast Mutagenesis Kit V2 (#C215)	Efficient amplification of any plasmids within 20 kb. Site-directed mutations of 1-5 discontinuous sites in one reaction.	1-5 separate site-directed mutagenesis on one plasmid.
TOPO Cloning	5min TA/Blunt-Zero Cloning Kit (#C601)	Cloning within 5 min. Positive Clone Rate > 95%	TA cloning. cloning with blunt ends.

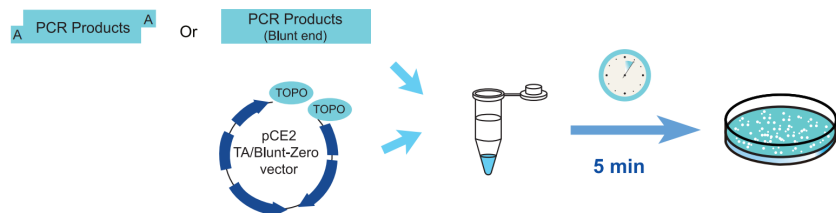
TOPO Cloning

● 5min TA/Blunt-Zero Cloning Kit (#C601)

● Features

- Ready-to-use master mix.
- Suitable for both TA cloning and blunt-end cloning.
- Rapid cloning within 5 min.
- High cloning efficiency with Positive Clone Rate > 95%.
- Ampicillin and Kana dual resistance vector.

● Workflow



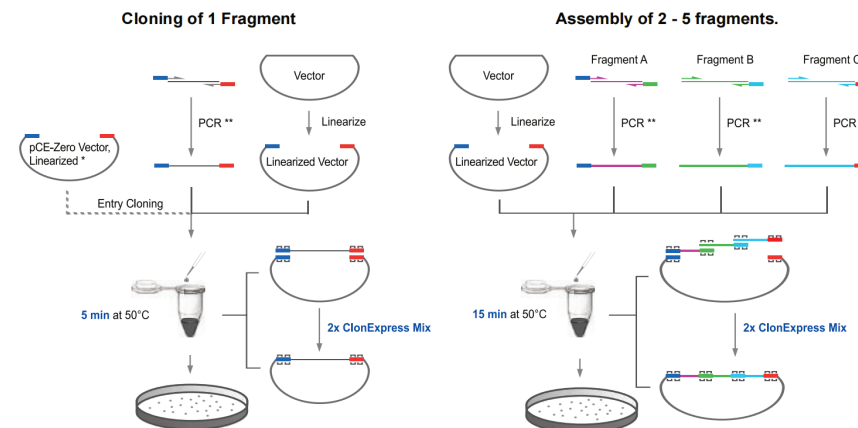
Fast Cloning

● ClonExpress Ultra One Step Cloning Kit (#C115)

● Features

- Cloning within 5 min.
- Ready-to-use super mix in one tube.
- Efficient cloning of fragments of 50 bp - 10 kb with Positive Clone Rate > 95%.
- Suitable for cloning of 1 fragment, assembly of 2 - 5 fragments, and entry cloning.
- Independent of DNA ligase, significantly reducing the self-ligated colonies.

● Mechanism



* pCE-Zero Vector, Linearized, is supplied with ClonExpress Ultra One Step Cloning Kit (Vazyme, #C115).

** It is highly recommended to use Vazyme's APP - "CE Design" - for easy primer design.

● Selected Product Citations

Bi G, Su M, Li N, et al. The ZAR1 resistosome is a calcium-permeable channel triggering plant immune signaling. *Cell*. 2021 May 11 :S0092-8674(21)00600-0.IF:38.637

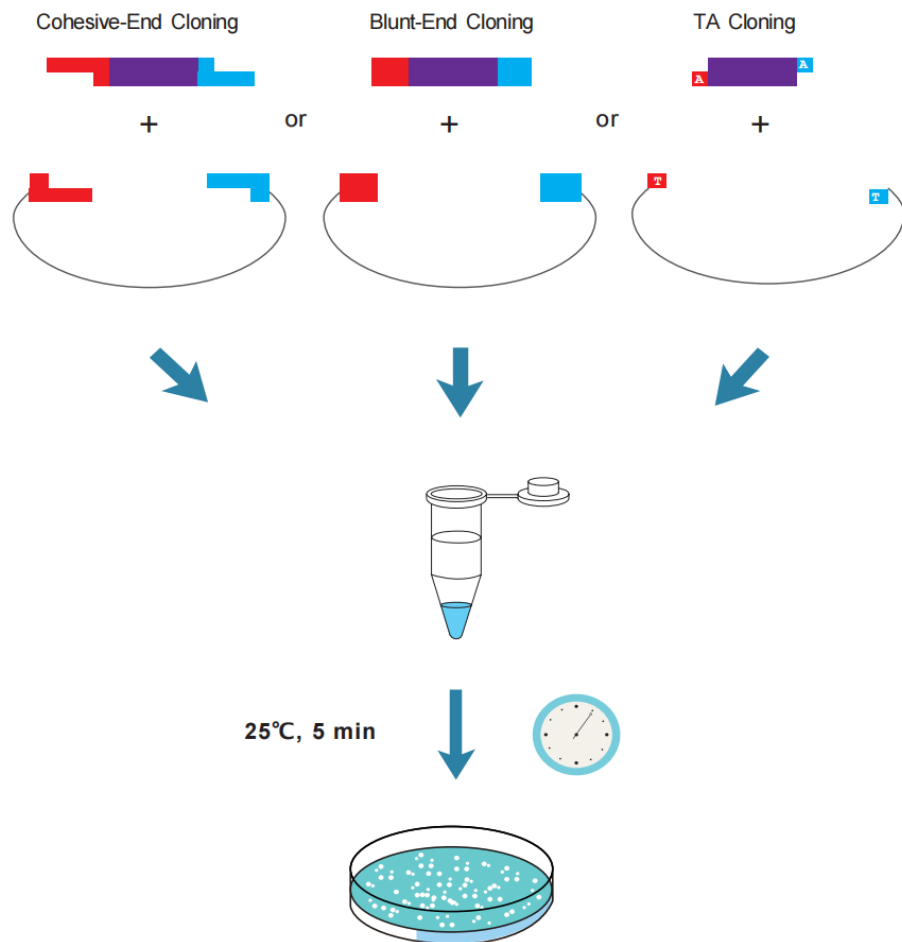
Jin S, Lin Q, Luo Y, et al. Genome-wide specificity of prime editors in plants. *Nat Biotechnol*. 2021 Apr 15.IF:36.558

5min Universal Ligation Mix (#C311)

Features

- **Versatile:** Suitable for TA cloning, blunt-end cloning, cohesive-end cloning, and ligation of linkers or adapters.
- **Fast:** Cloning within 5 min at 25°C.
- **Efficient:** Positive Clone Rate > 95%.

Mechanism



Schematic of 5 min Universal Ligation Mix experiment process

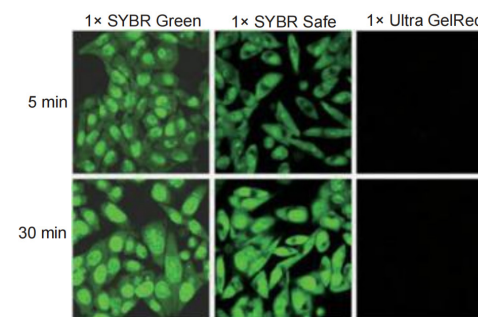
Nucleic Acid Electrophoresis

GelRed

Ultra GelRed (10,000 ×) (#GR501)

Perfect substitute
for ethidium bromide (EB)

No toxicity

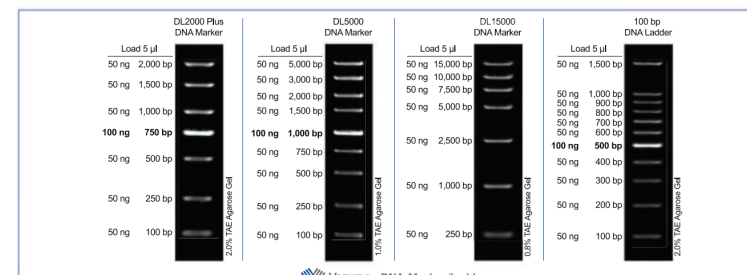


Ultra GelRed is unable to cross cell membranes.

DNA Marker/ Ladder

Stable

Clear Bands



Reverse Transcription

Selection Guide

HiScript II 1st Strand cDNA Synthesis Kit (#R211)
 HiScript II 1st Strand cDNA Synthesis Kit (+gDNA wiper) (#R212)
 HiScript II Q RT SuperMix for qPCR (#R221)
 HiScript II Q RT SuperMix for qPCR (+gDNA wiper) (#R223)
 HiScript II Q Select RT SuperMix for qPCR (#R222)
 HiScript II Q Select RT SuperMix for qPCR (+gDNA wiper) (#R225)
 HiScript III 1st Strand cDNA Synthesis Kit (#R312)
 HiScript III RT SuperMix for qPCR (+gDNA wiper) (#R323)
 HiScript III All-in-one RT SuperMix Perfect for qPCR (#R333)

Applications	HiScript II 1st Strand cDNA Synthesis Kit (#R211)	HiScript II 1st Strand cDNA Synthesis Kit (+gDNA wiper) (#R212)	HiScript II Q RT SuperMix for qPCR (#R221)	HiScript II Q RT SuperMix for qPCR (+gDNA wiper) (#R223)	HiScript II Q Select RT SuperMix for qPCR (#R222)	HiScript II Q Select RT SuperMix for qPCR (+gDNA wiper) (#R225)	HiScript III 1st Strand cDNA Synthesis Kit (#R312)	HiScript III RT SuperMix for qPCR (+gDNA wiper) (#R323)	HiScript III All-in-one RT SuperMix Perfect for qPCR (#R333)
RT-qPCR			●	●	●	●		●	●
RT-PCR	●	●						●	
Features									
SuperMix			●	●	●	●		●	●
Long-fragment cDNA	●	●					●		
Rapid removal of Genomic DNA		●		●		●	●	●	●
Primers									
Oligo dT ₂₃ VN / N6 Mix			●	●				●	●
Optional	●	●			●	●	●		

	M-MLV (H-) (#R021)	HiScript II Reverse Transcriptase (#R201)	HiScript III Reverse Transcriptase (#R302)
Reaction temperature	37°C - 42°C	42°C - 55°C	37°C - 50°C
Thermal stability	☆☆☆	☆☆☆☆☆	☆☆☆☆☆
RNase H activity	No	No	No
cDNA length	2 kb - 3 kb	Up to 20 kb	Up to 20 kb
Template adaptability	☆☆☆	☆☆☆☆	☆☆☆☆☆
Crude material adaptability	☆☆☆	☆☆☆☆	☆☆☆☆☆

RT-qPCR SuperMix

HiScript III All-in-one RT SuperMix Perfect for qPCR (#R333)

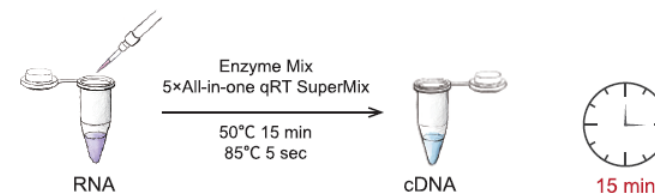
Features

- Heat-labile DNase, more thorough inactivation, more stable cDNA storage for a long time.
- Genomic DNA elimination and reverse transcription can be simultaneously completed in one step.
- Ready-to-use SuperMix: reverse transcription within 15 min by only adding template RNA.

Validation Data

1. Easy & Fast

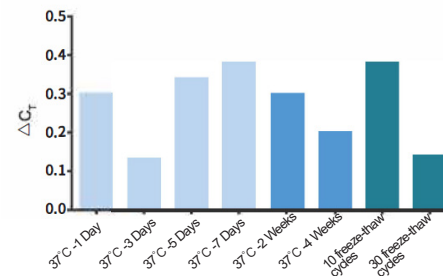
Genomic DNA elimination and reverse transcription can be simultaneously completed in one step. Reverse transcription within 15 min by only adding template RNA.



2. Ultra-high cDNA stability

RNA of HeLa cells (100 ng) was reversed using HiScript III All-in-one RT SuperMix Perfect for qPCR (Vazyme #R333). The obtained cDNA was placed at 37°C for 7 days, at 4°C for 4 weeks, and 30 freeze-thaw cycles for stress testing, while the cDNA was stored at -20°C as a control. The cDNA after different treatments was analyzed by qPCR.

The results show that the quantitative ΔC_T obtained by cDNA under various pressure conditions are all within 0.5. This indicates that the cDNA reversed by Vazyme #R333 can be stored stably at 37°C for 7 days, at 4°C for 4 weeks, and freeze-thaw cycles for 30 times, without any influence on the integrity of the cDNA.



$\Delta C_T = C_T(\text{Processing cDNA under different conditions}) - C_T(\text{Store cDNA at } -20^\circ\text{C})$

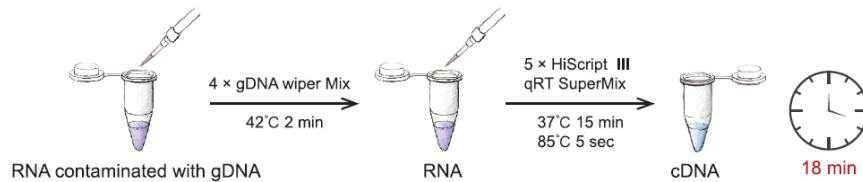
HiScript III RT SuperMix for qPCR (+gDNA wiper) (#R323)

Features

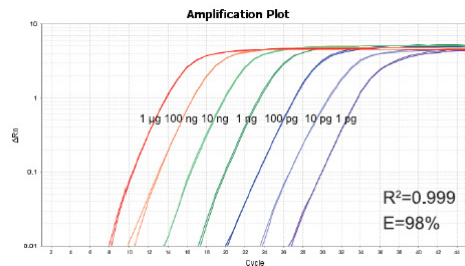
- Ready-to-use SuperMix: reverse transcription within 20 min by only adding template RNA.
- Excellent efficiency for low-input RNA or degraded RNA.
- Excellent tolerance for impurities (i.e. ethanol, isopropanol, phenol water, guanidine thiocyanate, humic acid).
- Lower C_T value and higher efficiency than most other commercially available reverse transcription reagents.

Validation Data

1. Easy & Fast



2. Excellent Sensitivity



RNA of HeLa cells was serially diluted and reverse transcribed using HiScript III RT SuperMix for qPCR (+gDNA wiper) (Vazyme, #R323), followed by qPCR detection of gene ACTB. The results show an excellent linear relationship across a wide range of RNA concentrations. The target gene (ACTB) was detected in 1 pg of RNA.

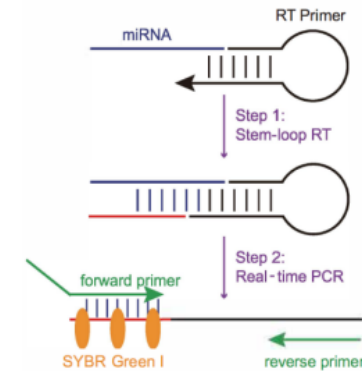
miRNA reverse transcription Kit

miRNA 1st Strand cDNASynthesis Kit (by stem-loop) (#MR101)

Features

- It has good linear relationship over a wide range of templates. Detects down to pg level of RNA template.
- Suitable for microRNA reverse transcription and qPCR experiments (Optimal Buffer composition and concentration).
- Supporting primer design software is provided to make primer design more convenient.

Mechanism



Schematic of stem-loop microRNA reverse transcription and quantification

qPCR

● Selection Guide

Applications	Products (Cat.#)	Features
SYBR	Taq Pro Universal SYBR qPCR Master Mix (#Q712)	Ultra-high amplification plateau value Universal
Probe	AceQ Universal U ⁺ Probe Master Mix V2 (#Q513)	Excellent linear relationship dUTP/Heat-labile UDG system
	Animal Detection U ⁺ Probe Master Mix (QV110)	Upgraded Hot-start Taq compatible with fast program
	Taq Pro HS U ⁺ Probe Master Mix (QN112)	upgraded template affinity Excellent resistance to blood impurities
SNP (TaqMan MGB Probe)	ChamQ Geno-SNP Probe Master Mix (#Q811)	Universal Anti-contamination

qPCR Master Mix (SYBR)

● Taq Pro Universal SYBR qPCR Master Mix (#Q712)

Best Combination of Specificity + Sensitivity

● Features

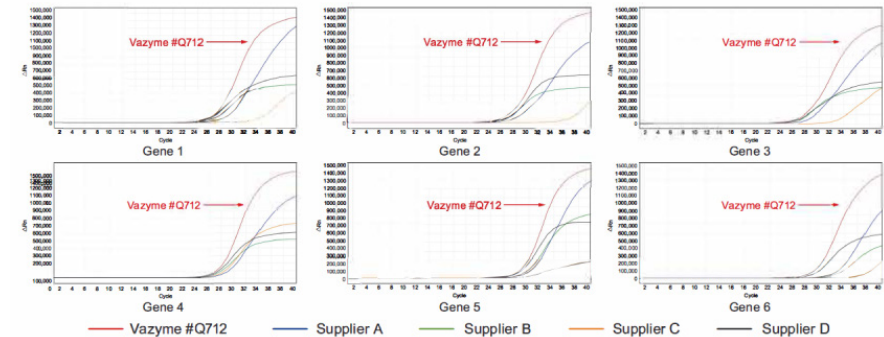
- Ultra-high amplification plateau value
- Amplification yield improvement
- Special ROX reference dye
- Universal

Validation Data

Ultra-high amplification plateau value.

With Hela cDNA as the template, six different genes were amplified under the same reaction conditions using TaqPro Universal SYBR qPCR Master Mix (Vazyme #Q712) and other commercially available dye qPCR reagents (from Supplier A, B, C, D).

The results show that the Vazyme #Q712 Master Mix has high sensitivity, high yield of amplification products and Ultra-high plateau value compared with similar products in different amplification systems.



qPCR Master Mix (Probe)

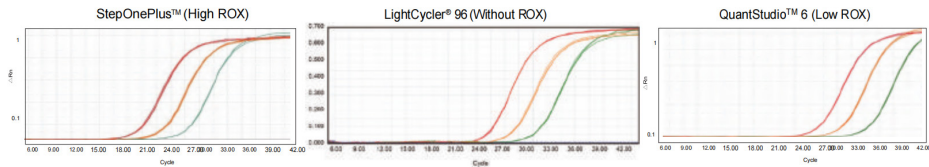
AceQ Universal U⁺ Probe Master Mix V2 (#Q513)

Features

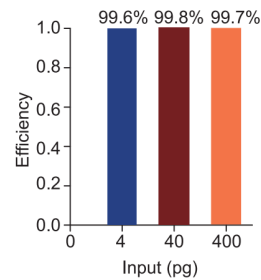
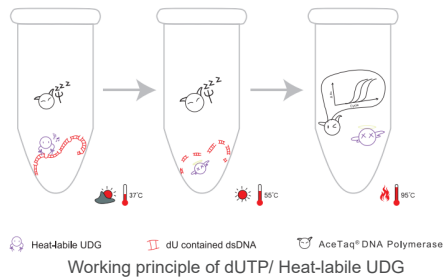
- Excellent sensitivity: Hot-start AceTaq and optimal buffer ensure high sensitivity and effectively inhibit non-specific amplification.
- Excellent linear relationship over a large range of input amount of template. Suitable for the detection of single-copy templates.
- Anti-contamination: the dUTP/UDG system eliminates possible contaminations and ensures reliable results.
- Universal: applicable for almost all qPCR instruments.

Validation Data

1.Applicable for almost all qPCR instruments.



2.dUTP/UDG system.



For Vazyme #Q513, the removal rate of the contaminated template is as high as 99.6%, effectively ensuring the accuracy of experimental results. U-containing templates (4 pg, 40 pg, 400 pg) were added respectively to the reaction system to evaluate the removal efficiency of the contaminated template by Vazyme #Q513.

Animal Detection U⁺ Probe Master Mix (#QV110)

Features

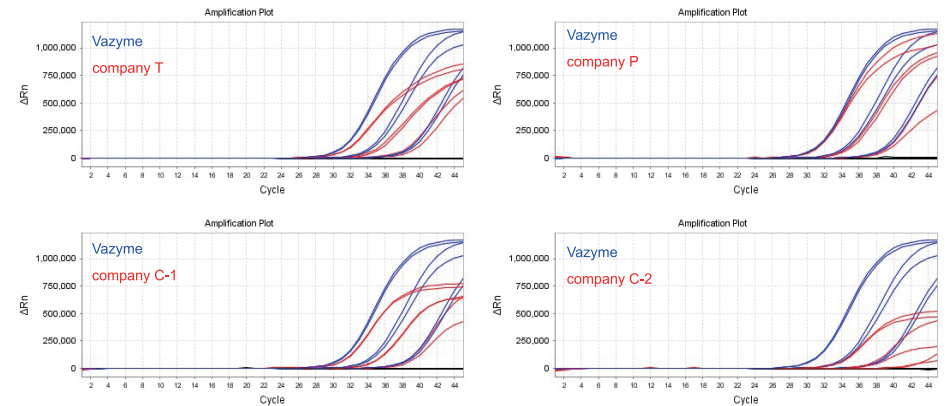
- Excellent sensitivity: Upgraded Hot-start Taq DNA polymerase with optimal buffer system improves the detection sensitivity of low-concentration templates.
- Anti-contamination: the dUTP/Heat-labile UDG system eliminates possible contaminations and ensures reliable results.
- Test results within 40 minutes, compatible with fast program.

Validation Data

Excellent amplification sensitivity and compatibility.

African swine fever virus DNA was used as a template for three 10-fold gradient dilution. Animal Detection U⁺ Probe Master Mix (Vazyme #QV110) and other brand probe qPCR reagents (from A/B/C company) were used to detect the target genes in each dilution gradient.

Vazyme #QV110 reagent shows excellent performance, when multiple systems are tested under the same reaction conditions. The following figure is one of the system test results:



Taq Pro HS U⁺ Probe Master Mix (#QN112)

Features

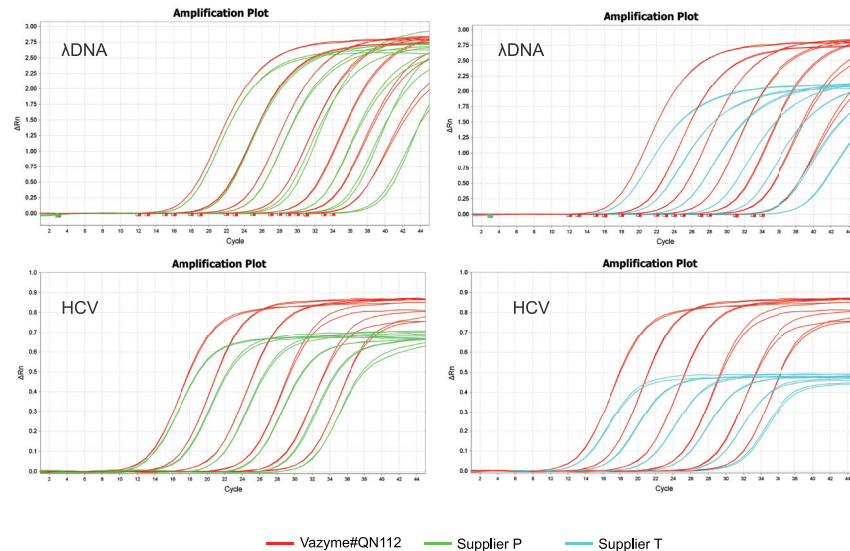
- Excellent sensitivity: Hot-start DNA polymerase (upgraded template affinity) with optimal buffer system improves the detection sensitivity of low-concentration templates.
- Anti-contamination: the dUTP/Heat-labile UDG system eliminates possible contaminations and ensures reliable results.
- Good amplification performance in blood-related impurity samples.
- Compatible with fast program to improve detection efficiency.

Validation Data

Excellent amplification sensitivity.

HCV plasmid and λ DNA were used as templates. Taq Pro HS U⁺ Probe Master Mix (Vazyme #QN112) and other commercially available brand probe method qPCR reagents (respectively from Supplier A/B) were used to amplify HCV plasmid and DNA genome under the same reaction conditions.

The results show that compared with similar products, Vazyme #QN112 premix has higher amplification sensitivity. Vazyme #QN112 has a wider range of template quantification, leading to a significant advantage in low-concentration template amplification.



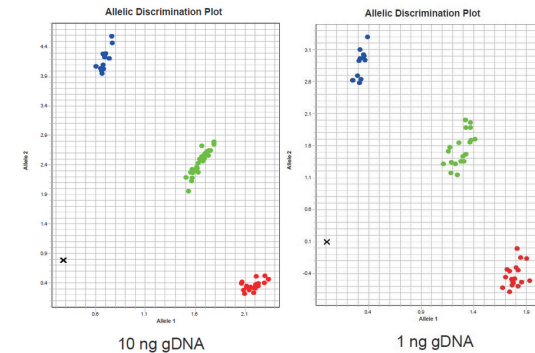
ChamQ Geno-SNP Probe Master Mix (#Q811)

Features

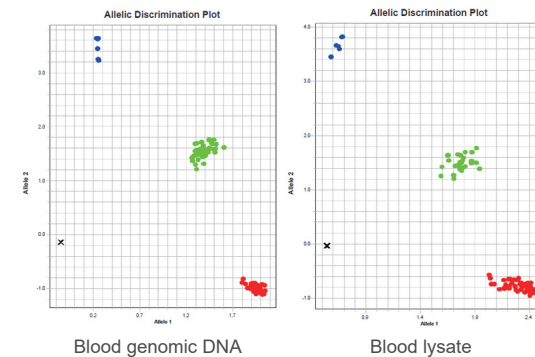
- Compatible with 1 - 10 ng of input genomic DNA.
- Accurate genotyping of SNP sites with GC-content of 25% - 73%.
- Excellent stability: stable signal and accurate genotyping results can be obtained both 72 h pre-PCR and 72 h post-PCR.
 - *72 h pre-PCR: PCR reaction solutions were prepared and left in darkness (at room temperature) for 72 hr before PCR;
 - *72 h post-PCR: after PCR, the samples were left in darkness (at room temperature) for 72 h.
- Blood lysate can be directly used as a template for SNP genotyping, with no need for blood genomic DNA extraction.

Validation Data

1. Flexible input amounts.



2. Direct genotyping with blood lysate.



Nucleic Acid Isolation

● Selection Guide

Category	Series	Sample / Application	Products	Cat.#
DNA Isolation & Purification	DNA Extraction (Column)	Blood / Cell / Tissue / Bacteria	FastPure Blood/Cell/Tissue/Bacteria DNA Isolation Mini Kit	DC112
		Blood	FastPure Blood DNA Isolation Mini Kit V2	DC111
		Cell / Tissue	FastPure Cell/Tissue DNA Isolation Mini Kit	DC102
		Bacteria	FastPure Bacteria DNA Isolation Mini Kit	DC103
		Plant	FastPure Plant DNA Isolation Mini Kit	DC104
		Lysozyme	Lysozyme	DE103
RNA Isolation & Purification	RNA Tissue Keeper	RNA Keeper for fresh tissue	RNA Keeper Stabilizer	R501
	Column RNA Extraction	Cell / Tissue Total RNA	FastPure Cell/Tissue Total RNA Isolation Kit V2	RC112
			FastPure Cell/Tissue Total RNA Isolation Kit	RC101
	Polysaccharide & Polyphenol-rich Plant total RNA	FastPure Plant Total RNA Isolation Kit (Polysaccharides & Polyphenolics-rich)	RC401	
Exosome Isolation	Cell supernatant		VEX Exosome Isolation Reagent (from cell culture media)	R601
	Serum		VEX Exosome Isolation Reagent (from serum)	R602
	Plasma		VEX Exosome Isolation Reagent (from plasma)	R603

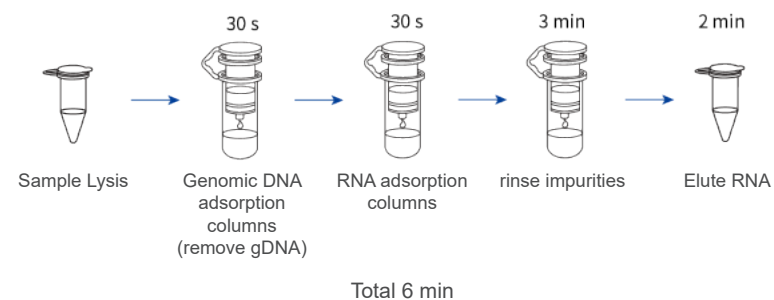
Cell and tissue RNA Isolation

● FastPure Cell/Tissue Total RNA Isolation Kit V2 (#RC112)

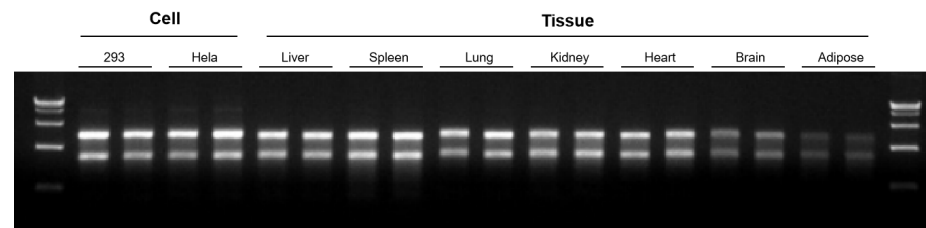
● Features

- Safe and non-toxic: no need for toxic and harmful reagents such as beta-mercaptoethanol and phenol/chloroform.
- Fast: operation takes only 6 minutes at room temperature.

● Workflow



● Validation Data



Total RNA was extracted using Vazyme #RC112 from 9 samples including 293 cells, HeLa cells, and liver, spleen, lung, kidney, heart, brain of rat, and adipose tissue of mice. The RNA products were loaded for agarose gel electrophoresis. Vazyme #RC112 showed great compatibility with different cell and tissue samples.

Plant RNA Isolation

● FastPure Plant Total RNA Isolation Kit (Polysaccharides & Polyphenolics-rich) (#RC401)

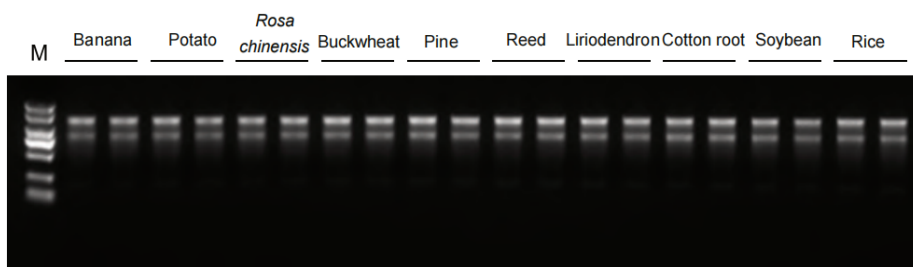
● Features

- High purity.
- Rapid extraction of total RNA from plant tissues, especially from those rich in polysaccharide & polyphenol.
- Low genomic DNA residue.

● Validated Samples

Pine needles, Eriobotrya japonica leaves, potato tubers, grape fruits, apples, pears, tobacco leaves, mature leaves and roots of wheat, peach fruit, lotus, chrysanthemum rhizome, bananas, Rosa chinensis, buckwheat leaves and seeds, poplar, Catharanthus roseus leaves, liriodendron, reed, rice plant, roots and leaves of cotton, strawberry leaf, Phoebe neurantha leaves, ginkgo (root, leaf, flower and fruits), Arabidopsis seeds, corn seeds, fungal hyphae, etc.

● Validation Data



Total RNA was extracted using Vazyme #RC401 from 50 mg of banana fruit, potato tubers, rose petals, pine needles, reed leaves, Liriodendron leaves, cotton roots, soybean leaves, rice leaves, or 20 mg of buckwheat seed, respectively. The RNA products were loaded for agarose gel electrophoresis. Vazyme #RC401 showed great compatibility to above plants, especially to those that were rich in polysaccharide & polyphenol, and the RNA extracted using Vazyme #RC401 was with good integrity and high yield.

M: DL2000 Plus DNA Marker (Vazyme #MD101). The elution volume was 100 µl and the loading amount was 4 - 10 µl for agarose gel electrophoresis.

Blood, Cell, Tissue and Bacteria DNA Isolation

● FastPure Blood/Cell/Tissue/Bacteria DNA Isolation Mini Kit (#DC112)

● Features

- High quality and integrity.
- Suitable for direct DNA extraction from a variety of fresh or frozen anticoagulant, cell, animal tissue and bacterial samples.
- Fast: Animal tissue offers a 30-minute fast extraction protocol.

● Validated Samples

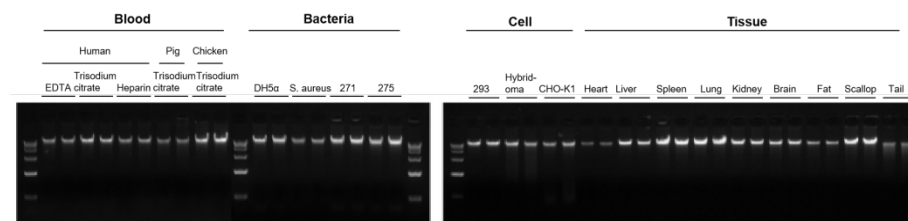
Blood: Human EDTA, heparin sodium, sodium citrate anticoagulant blood, pig blood, chicken blood and other fresh or frozen anticoagulant blood;

Bacteria: DH5α, Staphylococcus aureus (S. aureus), etc;

Cells: Human 293 cells, mouse hybridoma cells, hamster CHO-K1 cells, etc;

Tissue: heart, liver, spleen, lung, kidney, brain of rat, fat and tail of mouse, scallop and other tissues.

● Validation Data



The genomic DNA was extracted from the above samples using Vazyme #DC112, including 200 µl human blood samples with EDTA, heparin sodium, and sodium citrate, 200 µl pig blood, 20 µl chicken blood, etc. The results show that Vazyme #DC112 has a wide range of sample compatibility and can perform high-quality extraction of genomic DNA from different species.

M: DL15000 DNA Marker (Vazyme #MD103). The elution volume was 100 µl and the loading amount was 160 - 180 ng for agarose gel electrophoresis.

Cell Biology / Protein Research

● Selection Guide

Category	Series	Application	Products (Cat.#)
Cell	Apoptosis detection	TUNEL method Applicable to cells: Round coverslips, cell smears; Tissue: Paraffin section, frozen section samples	A111
			A112
			A113
	Annexin method Suitable for cells: suspension cells, adherent cell samples	A211	
		Cell proliferation assay	For cell proliferation, cell viability, cytotoxicity assays
	Dual-luciferase reporter gene assay	For cell signal transduction pathway, promoter/enhancer/transcription factor research, etc.	DL101
Cell transfection	DNA transfection of multiple cells (adherent or suspension)	T101	
Mycoplasma Detection and Removal	Rapid detection of mycoplasma contamination in cell cultures: various suspension, adherent cultured cell; Wide compatibility with medium and serum types	D101	
Protein	Protein Marker	It can be used to judge the molecular weight of 10-180 kDa Western Blot target protein and the transfer efficiency of Western Blot.	MP102
	Bradford protein quantification	Protein concentration determination	E111
		Protein Concentration Determination (Detergent Resistance)	E211
BCA protein quantification	Protein Concentration Determination (Detergent Resistance)	E112	

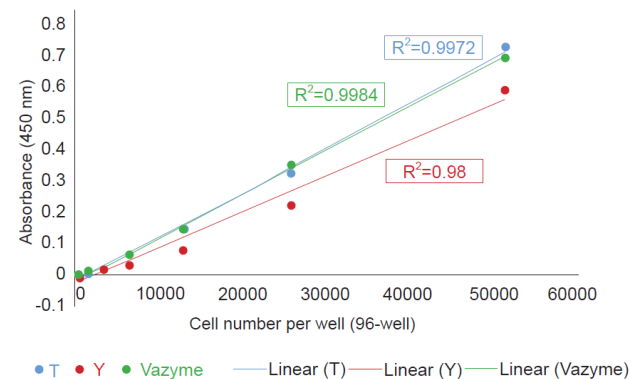
Cell Counting

● CCK-8 Cell Counting Kit (#A311)

● Features

- Ready-to-use solution.
- High sensitivity, with excellent linear correlation and repeatability.
- Low cytotoxicity.

● Validation Data



HEK293 suspension cells were serially diluted and inoculated to a 96-well plate. The cell density in each group (n = 3) is: 0, 400, 800, 1600, 3200, 6400, 12800, 25600, 51200 cells per well. CCK-8 reagents from Vazyme (#A311 green), Supplier T (blue), and Supplier Y (red) were used for cell counting, respectively. The R² value of Vazyme #A311 is > 0.99.

📖 Selected Product Citations

Zheng Q, et al. Thiopeptide antibiotics exhibit a dual mode of action against intracellular pathogens by affecting both host and microbe. *Chemistry & Biology*, 2015, 22(8):1002-7.

Liu Z, et al. Adiponectin reduces ER stress-induced apoptosis through PPAR α transcriptional regulation of ATF2 in mouse adipose. *Cell Death & Disease*, 2016, 7(11):e2487.

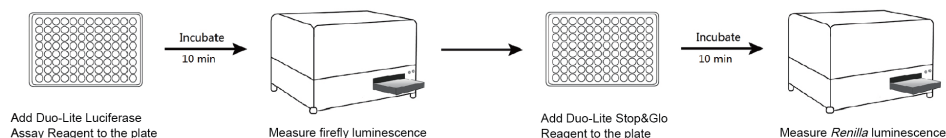
Luciferase Assay

Duo-Lite Luciferase Assay System (#DD1205)

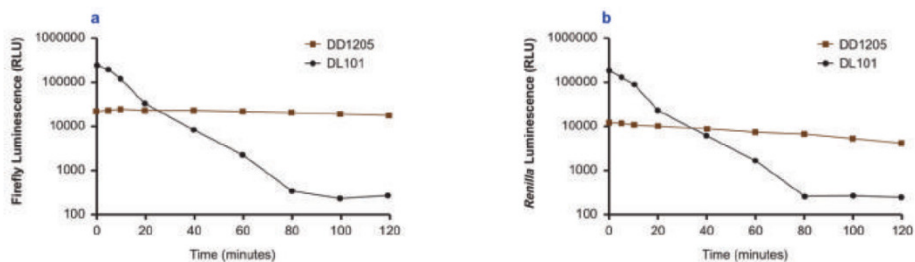
Features

- Easy to operate: The experiment could be completed by two steps: adding sample and reading plate. There is no need for cell lysis.
- Stable signal: Glow-type kit with 2 h half-life of fluorescence. Suitable for high-throughput operation.
- High accuracy: The system contains Renilla luciferase, which could correct the errors that caused by differences among cell number, transfection efficiency and cell growth state.

Workflow



Validation Data



Sample: HEK293 cells co-transfected with firefly + plasmid (96 well plate incubate)

Experimental design: Detect the dynamic change of fluorescent values of glow-type kit (Vazyme #DD1205) and flash-type kit (Vazyme #DL101) within 120 min simultaneously.

Conclusion: Compared with flash-type kit (Vazyme #DL101), glow-type kit (Vazyme #DD1205) shows higher light stability. The half-life of fluorescence is up to 2 h.

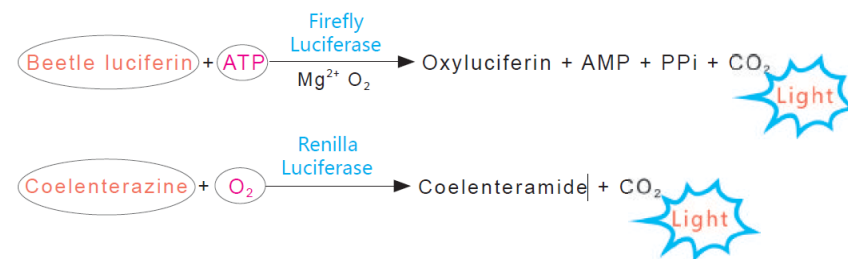
Luciferase Assay

Dual Luciferase Reporter Assay Kit (#DL101)

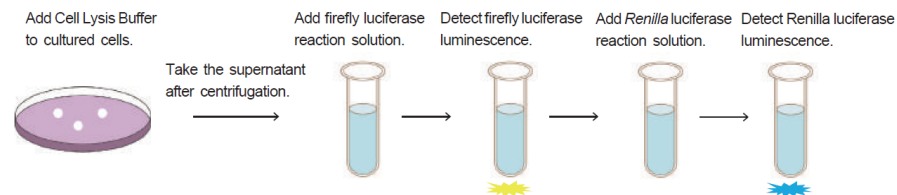
Features

- Robust luminescent signals: applicable for analysis of weak promoters and other genetic regulatory elements.
- Detection linear range covers up to 8 orders of magnitude ($R^2 > 0.99$).
- Detection sensitivity of 10^{-18} mol.

Mechanism



Workflow



Selected Product Citations

Chen S, Wu JL, Liang Y, et al. Arsenic Trioxide Rescues Structural p53 Mutations through a Cryptic Allosteric Site. *Cancer Cell*. 2020 Dec 7: S1535-6108(20)30605-X.IF:26.602

Lin JW, Tang C, Wei HC, et al. Genomic monitoring of SARS-CoV-2 uncovers an Nsp1 deletion variant that modulates type I interferon response. *Cell Host Microbe*. 2021 Mar 10;29(3):489-502.eB.IF:15.923

Mycoplasma Detection

Myco-Blue Mycoplasma Detector (#D101)

Features

- Cell culture supernatant can be used directly for detection.
- Results are obtained after incubation at 60°C for 1 h and can be determined by visual observation.
- Accuracy is higher than PCR method, and comparable to qPCR method.
- Suitable for detection of all kinds of mycoplasma that are commonly found in cell culture.

Validated Cell Lines

Validated cells and media serum include (but are not limited to):

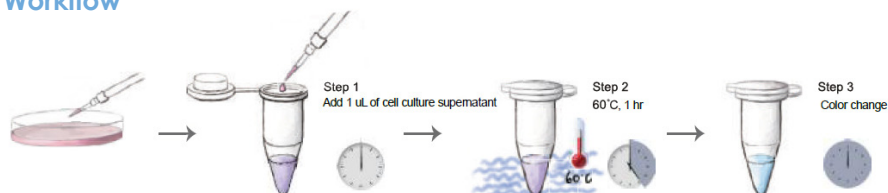
*Suspension cells: CHO, NS0, 293F, mouse hybridoma, Sf9, BHK21, etc.

*Adherent cells: Vero, MDCK, SP2/0, 293T, HepG2, HeLa, A549, MB-MDA231, L929, MEF, etc.

*Medium: CD FortiCHO, CDM4, Expi 293 Medium, CD Hybridoma, Grace, DMEM, 1640, F12, etc.

*Serum: fetal calf / calf serum; horse serum; Gibco KSR serum replacement, etc.

Workflow



qPCR results. Positive is indicated by copy number (copies / μ l supernatant); negative is indicated by "-".
PCR results.



Myco-Blue results.

Randomly selected 16 cell cultures, and mycoplasma were detected by three methods.

In Vitro Transcription

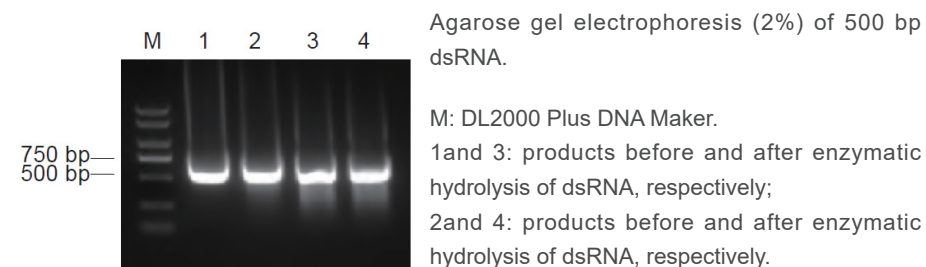
T7 RNAi Transcription Kit (#TR102)

Features

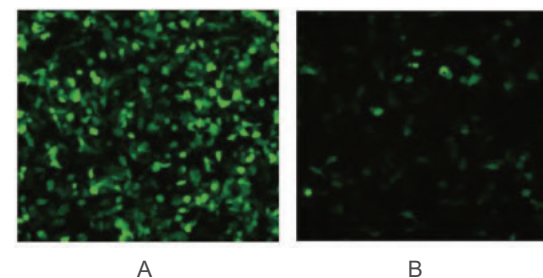
- High yield: yields up to 80 μ g of dsRNA in a single reaction.
- Magnetic bead purification: recovery efficiency up to 80%.
- Able to transcribe both siRNA (21 bp) and dsRNA (long fragment).

Validation Data

1. Excellent transcription efficiency.



2. Knock-down of GFP expression by transcribed siRNA.



293T cells were co-transfected for 24 h with both GFP plasmid and negative control GFP siRNA (A) or positive GFP siRNA (B).

03

Selected Product Citations

Nucleic Acid Isolation

01. Luo Z, Rong Z, Zhang J, et al. Circular RNA circCCDC9 acts as a miR-6792-3p sponge to suppress the progression of gastric cancer through regulating CAV1 expression. *Mol Cancer* 2020 May 9;19(1):86.IF:15.3 (Vazyme #DC102)

PCR

01. Zhao Q, Wang M, Xu D, et al. Metabolic coupling of two small-molecule thiols programs the biosynthesis of lincomycin A. *Nature* 2015 Feb 5;518(7537):115-9.IF:42.351 (Vazyme #P505)
02. Liu C, Shen L, Xiao Y, et al. Pollen PCP-B peptides unlock a stigma peptide-recepto kinase gating mechanism for pollination *Science*. 2021 Apr 9;372(6538):171-175.IF:41.84 (Vazyme #P505)
03. Zhang B, Wang KB, Wang W, et al. Enzyme-catalysed [6+4] cycloadditions in the biosynthesis of natural products. *Nature*. 2019 Apr ;568(7750):122-126.IF:41.577 (Vazyme #P222)
04. Zhou C, Sun Y, Yan R, et al. Off-target RNA mutation induced by DNA base editing and its elimination by mutagenesis. *Nature*. 2019 Jul;571(7764):275-278.IF:41.577 (Vazyme #PD101)
05. Yin W, Mao C, Luan X, et al. Structural basis for inhibition on of the RNA-dependent RNA polymerase from SARS-CoV-2 by remdesivir *Science*. 2020 Jun 26;368(6498):1499-1504.IF:41.037 (Vazyme #P505)
06. Jin S, Lin Q, Luo Y, et al. Genome-wide specificity of prime editors in plants. *Nat Biotechnol*. 2021 Apr 15. IF:36.558 (Vazyme #P222)
07. Zhang B, Li J, Yang X, et al. Crystal Structures of Membrane Transporter MmpL 3, an Anti-TB Drug Target. *Cell*. 2019 Jan 24;176(3):636-648.e13.IF:36.216 (Vazyme #P505)
08. Liu Y, Yang G, Huang S, et al. Enhancing prime editing by Csy4-mediated processing of pegRNA. *Cell Res*. 2021 Oct;31(10):1134- 1136.IF:25.617 (Vazyme #P505)
09. Zhao T, Li Q, Zhou C, et al. Small-molecule compounds boost genome-editing efficiency of cytosine base editor. *Nucleic Acids Res* 2021 Jul 30:gkab645. IF:16.971 (Vazyme #P505)

Cloning / Mutagenesis

01. Wu N, Ming X, Xiao J, et al. TBX6 null variants and a common hypomorphic allele in congenital scoliosis. *N Engl J Med*. 2015 Jan 22;372(4):341-50.IF:54.42 (Vazyme #C112)
02. Ge J, Li W, Zhao Q , et al. Architecture of the mammalian mechanosensitive Piezo1 channel. *Nature*. 2015 Nov 5;527(7576):64-9 IF:42.351 (Vazyme #C112)
03. Liu C, Shen L, Xiao Y, et al. Pollen PCP-B peptides unlock a stigma peptide-receptor kinase gating mechanism for pollination *Science*. 2021 Apr 9;372(6538):171-175.IF:41.84 (Vazyme #C112)(Vazyme #C214)
04. Li X, Wang Y, Liu Y, et al. Base editing with a Cpf1-cytidine deaminase fusion. *Nat Biotechnol*. 2018 Apr;36(4):324-327.IF:41.667 (Vazyme #C112)
05. Zhang B, Wang KB, Wang W, et al. Enzyme-catalysed [6+4] cycloadditions in the biosynthesis of natural products. *Nature*. 2019 Apr;568(7750):122-126.IF:41.577 (Vazyme #C113)
06. Jin S, Zang Y, Gao Q , et al. Cytosine , but not adenine, base editors induce genome-wide off-target mutations in rice. *Science*. 2019 Apr 19;364(6437):292-295.IF:41.058 (Vazyme #C112)

07. Lu Y, Zheng Y, Coyaud E et al. Palmitoylation of NOD1 and NOD2 is required for bacterial sensing. *Science*. 2019 Oct 25;366(6464):460-467. IF:41.037 (Vazyme #C113)

08. Bi G, Su M, Li N, et al. The ZAR1 resistosome is a calcium-permeable channel triggering plant immune signaling. *Cell*. 2021 May 11;S0092-8674(21)00600-0. IF:38.637 (Vazyme #C112) (Vazyme #C113)

09. Huang XP, Shen DD, Xu T, et al. Structural insights into the human D1 and D2 dopamine receptor signaling complexes. *Cell*. 2021 Feb 18. IF:38.63 (Vazyme #C112)

10. Wang S, Zong Y, Lin Q, et al. Precise, predictable multi-nucleotide deletions in rice and wheat using APOBEC-Cas9. *Nat Biotechnol* 2020 Dec;38(12):1460-1465. IF:36.55 (Vazyme #C112)

11. Jin S, Lin Q, Luo Y, et al. Genome-wide specificity of prime editors in plants. *Nat Biotechnol*. 2021 Apr 15. IF:36.558 (Vazyme #C112)

12. Xu Y, Zhou P, Cheng S, et al. A Bacterial Effector Reveals the V-ATPase-ATG16L1 Axis that Initiates Xenophagy. *Cell*. 2019 Jul 25;178(3):552-566. e20. IF:36.216 (Vazyme #C112)

13. Wang K, Sun Q, Zhong X, et al. Structural Mechanism for GSDMD Targeting by Autoprocessed Caspases in Pyroptosis. *Cell*. 2020 Mar 5;180(5):941-955. e20. IF:36.216 (Vazyme #C112)

14. Wang X, Li J, Wang Y, et al. Efficient base editing in methylated regions with a human APOBEC3A-Cas9 fusion. *Nat Biotechnol*. 2018 Nov;36(10):946-949. IF:35.724 (Vazyme #C112)

15. Zong Y, Song Q, Li C, et al. Efficient C-to-T base editing in plants using a fusion of nCas9 and human APOBEC3A. *Nat Biotechnol*. 2018 Oct 1. IF:35.724 (Vazyme #C112)

16. Li T, Yang X, Yu Y, et al. Domestication of wild tomato is accelerated by genome editing. *Nat Biotechnol*. 2018 Oct 1. IF:35.724 (Vazyme #C112)

17. Zhang XO, Wang HB, Zhang Y, et al. Complementary sequence-mediated exon circularization. *Cell*. 2014 Sep 25;159(1):134-147. IF:33.116 (Vazyme #C112)

18. Li C, Zhang R, Meng X, et al. Targeted, random mutagenesis of plant genes with dual cytosine and adenine base editors. *Nat Biotechnol*. 2020 Jul;38(7):875-882. IF:31.864 (Vazyme #C112)

19. Lin Q, Zong Y, Xue C, et al. Prime genome editing in rice and wheat. *Nat Biotechnol*. 2020 May;38(5):582-585. IF:31.864 (Vazyme #C112)

20. Zhang X, Zhu B, Chen L, et al. Dual base editor catalyzes both cytosine and adenine base conversions in human cells. *Nat Biotechnol*. 2020 Jul;38(7):856-860. IF:31.864 (Vazyme #C113)

21. Xing YH, Yao RW, Zhang Y, et al. SLERT Regulates DDX21 Rings Associated with Pol I Transcription. *Cell*. 2017 May 4;169(4):664-678. e16. IF:30.409 (Vazyme #C215)

22. Mao C, Ma Z, Jia Y, et al. Nidogen-2 Maintains the Contractile Phenotype of Vascular Smooth Muscle Cells and Prevents Neointima Formation via Bridging Jagged1-Notch3 Signaling. *Circulation*. 2021 Jul 28. IF:29.69 (Vazyme #C112)

23. Xie D, Chen M, Niu J, et al. Phase separation of SERRATE drives dicing body assembly and promotes miRNA processing in Arabidopsis. *Nat Cell Biol*. 2021 Jan;23(1):32-39. IF:28.824 (Vazyme #C112)

24. Huang S, Xu P, Tan Y, et al. Structural basis for recognition of anti-migraine drug lasmiditan by the serotonin receptor 5-HT1F-G protein complex. *Cell Res*. 2021 Jul 8. IF:25.617 (Vazyme #C112)

25. Liu Y, Yang G, Huang S, et al. Enhancing prime editing by Csy4-mediated processing of pegRNA. *Cell Res*. 2021 Oct;31(10):1134-1136. IF:25.617 (Vazyme #C112)

26. Gao L, Su C, Du X, et al. FAD-dependent enzyme-catalysed intermolecular [4+2] cycloaddition in natural

product biosynthesis. *Nat Chem*. 2020 Jul;12(7):620-628. IF:23.19 (Vazyme #C112)

27. Wang L, Xue W, Zhang H, et al. Eliminating base-editor-induced genome-wide and transcriptome-wide off-target mutations. *Nat Cell Biol*. 2021 May;23(5):552-563. IF:20.04 (Vazyme #C112)

28. Zhou Z, Du P, Yu M, et al. Assessment of infectivity and the impact on neutralizing activity of immune sera of the COVID-19 variant, CAL.20C. *Signal Transduct Target Ther*. 2021 Jul 27;6(1):285. IF:18.187 (Vazyme #C214)

29. Xu J, Ji L, Ruan Y, et al. UBQLN1 mediates sorafenib resistance through regulating mitochondrial biogenesis and ROS homeostasis by targeting PGC1 in hepatocellular carcinoma. *Signal Transduct Target Ther*. 2021 May 18;6(1):190. IF:18.187 (Vazyme #C112)

30. Yin W, Li Z, Jin M, et al. A complex structure of arrestin-2 bound to a G protein-coupled receptor. *Cell Res*. 2019 Dec;29(12):971-983. IF:17.848 (Vazyme #C215)

31. Chen X, Li A, Sun BF, et al. 5-methylcytosine promotes pathogenesis of bladder cancer through stabilizing mRNAs. *Nat Cell Biol* 2019 Aug ;21(8):978-990. IF:17.728 (Vazyme #C214)

32. Zhang X, Chen L, Zhu B, et al. Increasing the efficiency and targeting range of cytidine base editors through fusion of a single stranded DNA-binding protein domain. *Nat Cell Biol*. 2020 Jun;22(6):740-750. IF:17.728 (Vazyme #C113)

33. Liu J, Huang T, Zhang Y, et al. Sequence- and structure-selective mRNA m5C methylation by NSUN6 in animals [J]. *National Science Review*, 2020. IF:16.69 (Vazyme #C214)

34. Mo J, Chen Z, Qin S, et al. TRADES: Targeted RNA Demethylation by SunTag System. *Adv Sci (Weinh)*. 2020 Aug 16;7(19):2001402. IF:15.84 (Vazyme #C112)

35. Han F, Zhang L, Chen C, et al. GLTSCR1 Negatively Regulates BRD4-Dependent Transcription Elongation and Inhibits CRC Metastasis. *Adv Sci (Weinh)*. 2019 Oct 16;6(23):1901114. IF:15.804 (Vazyme #C214)

36. Jin S, Fei H, Zhu Z, et al. Rationally Designed APOBEC3B Cytosine Base Editors with Improved Specificity. *Mol Cell*. 2020 Sep 3;79(5):728-740. e6. IF:15.58 (Vazyme #C112)

37. Chen YG, Li DS, Ling Y, et al. A cryptic plant terpene cyclase producing unconventional 18- and 14-membered macrocyclic C25 and C20 terpenoids with immunosuppressive activity. *Angew Chem Int Ed Engl*. 2021 Sep 27. IF:15.336 (Vazyme #C112)

Reverse Transcription

01. Zheng X, Zhang D, Li Y, et al. Incompatible and sterile insect techniques combined eliminate mosquitoes. *Nature*. 2019 Aug;572(7767):56-61. IF:43.07 (Vazyme #R223)

02. Wu H, Qu X, Dong Z, et al. WUSCHEL triggers innate antiviral immunity in plant stem cells. *Science*. 2020 Oct 9;370(6513):227-231. IF:41.84 (Vazyme #R323)

03. Shen H, Yang M, Li S, et al. Mouse totipotent stem cells captured and maintained through spliceosomal repression. *Cell*. 2021 May 27;184(11):2843-2859. e20. IF:41.582 (Vazyme #R223)

04. Huang B, Chen Z, Geng L, et al. Mucosal Profiling of Pediatric-Onset Colitis and IBD Reveals Common Pathogenics and Therapeutic Pathways. *Cell*. 2019 Nov 14;179(5):1160-1176. e24. IF:36.216 (Vazyme #R323)

05. Liu X, Zhu R, Luo Y, et al. Distinct human Langerhans cell subsets orchestrate reciprocal functions and

require different developmental regulation. *Immunity*. 2021 Sep 8;S1074-7613(21)00344-7. IF:31.745 (Vazyme #R222)

06.Chen S, Wu JL, Liang Y, et al. Arsenic Trioxide Rescues Structural p53 Mutations through a Cryptic Allosteric Site. *Cancer Cell*. 2020 Dec7:S1535-6108(20)30605-X. IF:26.602 (Vazyme #R223)

07.Zhang L, Zhu Z, Yan H, et al.Creatine promotes cancer metastasis through activation of Smad2/3. *Cell Metab*. 2021 Mar 27:S1550- 4131(21)00116-9 . IF:21.567 (Vazyme #R223)

08.Wang LY, Li ZK, Wang LB, et al. Overcoming Intrinsic H3K27me3 Imprinting Barriers Improves Post-implantation Development after Somatic Cell Nuclear Transfer. *Cell Stem Cell*. 2020 Aug 6;27(2):315-325. e5.IF:20.86 (Vazyme #R312)

09.Wang X, Yang L, Wang YC, et al. Comparative analysis of cell lineage differentiation during hepatogenesis in humans and mice at the single-cell transcriptome level. *Cell Res*. 2020 Dec;30(12):1109-1126. IF:20.51(Vazyme #R223)

10.Zhao Y, Kuang M, Li J, et al.Publisher Correction: SARS-CoV-2 spike protein interacts with and activates TLR4. *Cell Res*. 2021 Apr 27;1.IF:20.507 (Vazyme #R312)

11.Li LC, Wang X, Xu ZR, et al. Single-cell patterning and axis characterization in the murine and human definitive endoderm. *Cell Res* 2020 Oct 26.IF:20.51 (Vazyme #R223)

12.Liu X , Wei W , Li X , et al. (2017) BMI1 and MEL18 Promote Colitis-Associated Cancer in Mice via REG3B and STAT3 *Gastroenterology*.IF: 18.392 (Vazyme #R211)

13.Zhang X, Chen L, Zhu B, et al. Increasing the efficiency and targeting range of cytidine base editors through fusion of a singlestranded DNA-binding protein domain. *Nat Cell Biol*. 2020 Jun;22(6):740-750.IF:17. 728 (Vazyme #R222)

14.Mi Cai Zhong , Xiao Dong Jiang, Guo Qian Yang, et al. Rose without prickle: genomic insights linked to moisture adaptation , *National Science Review*, 2021,nwab092 IF:17.275 (Vazyme #R223)

15. Quan LH, Zhang C, Dong M, et al. Myristoleic acid produced by enterococci reduces obesity through brown adipose tissue activation *Gut*. 2020 Jul;69(7) :1239-1247 .IF:17.016 (Vazyme #R312)

16.Li G, Zhu Q, Wang B,et al. Rejuvenation of Senescent Bone Marrow Mesenchymal Stromal Cells by Pulsed Triboelectric Stimulat1on *Adv Sci (Weinh)*. 2021 Jul 14:e2100964.IF:16.806 (Vazyme #R323)

17.Meng Q, Wang K, Brunetti T, et al. The DGCR5 long noncoding RNA may regulate expression of several schizophrenia-related genes. *Sci Transl Med*. 2018 Dec 19;10(472):eaat6912.IF:16.71 (Vazyme #R223)

18.Liu J , Huang T , Zhang Y , et al. Sequence- and structure-selective mRNA m5C methylation by NSUN6 in animals[J]. *National Science Review*, 2020.IF:16.69 (Vazyme #R222)

19.Lan F, Huang QH, Zhang SJ, et al. SETD2 deficiency accelerates MOS-associated leukemogenesis via S100a9 in NHD13 mice and predicts poor prognosis in MDS. *Blood*. 2020 Jun 18;135(25):2271-2285. IF:16.56 (Vazyme #R223)

20.Chen S, Liu X, Peng C, et al. The phytochemical hyperforin triggers thermogenesis in adipose tissue via a Dlat-AMPK signaling axis to curd obesity. *Cell Metab*. 2021 Mar 2;33(3):565-580.e7. IF:16.083 (Vazyme #R201)

21.Guo Q, Zhao Y, Li J, et al. Induction of alarmin S100A8/A9 mediates activation of aberrant neutrophils in the pathogenesis of COVID-19. *Cell Host Microbe*. 2021 Feb 10;29(2):222-235.e4.IF:15.923 (Vazyme #R312)

22. Cui M, Pang G, Zhang T, et al. Optotheranostic Nanosystem with Phone Visual Diagnosis and

Optogenetic Microbial Therapy for Ulcerative Colitis At-Home Care.*ACS Nano*. 2021 Apr 27;15(4) :7040-7052.IF:15.881 (Vazyme #R223)

21.Zhao Z, Su Z, Liang P, et al. USP38 Couples Histone Ubiquitination and Methylation via KDM5B to Resolve Inflammation. *Adv Sci (Weinh)*. 2020 Oct 11;7(22) :2002680.IF:15.84 (Vazyme #R323)

24.Liu J, Chang B, Li Q, Xu L, Liu X, Wang G, Wang Z, Wang L. Redox-Responsive Dual Drug Delivery Nanosystem Suppresses Cancer Repopulation by Abrogating Doxorubicin-Promoted Cancer Sternness , Metastasis , and Drug Resistance. *Adv Sci (Weinh)*. 2019 Feb 4;6(7) :1801987.IF:15.804 (Vazyme #R201)

25.Sun B, Yang X, Hou F, et al.Regulation of host and virus genes by neuronal miR-138 favours herpes simplex virus 1 latency . *Nat Microbiol*. 2021 May;6(5):682-696. IF:15.54 (Vazyme #R233)

26.26. Han X, Yu H, Huang D, et al. A molecula roadmap for induced multi-lineage trans-differentiation of fibroblasts by chemical combinations. *Cell Res*. 2017 Jun;27(6):842.IF:15.393 (Vazyme #P621)

qPCR

01.Chen J, Ou Y, Luo R, et al. SAR1B senses leucine levels to regulate mTORC1 signalling. *Nature*. 2021 Jul 21. IF:49.962 (Vazyme #Q511)

02.Shi R, Shan C, Duan X, et al. A human neutralizing antibody targets the receptor-binding site of SARS-CoV-2 . *Nature*. 2020 Aug;584(7819):120-124. IF:43.07 (Vazyme #Q221)

03.Wang G, Vega-Rodriguez J, Diabate A, et al. Clock genes and environmental cues coordinate Anopheles pheromone synthesis, swarming, and mating. *Science*. 2021 Jan 22;371(6527):411-415.IF:41.84 (Vazyme 04.#Q111)

Zhou H, Su J, Hu X,et al. Glia-to-Neuron Conversion by CRISPR-CasRx Alleviates Symptoms of Neurological Disease in Mice. *Cell* 2020 Apr 30;181(3):590-603.e16. IF:38.638 (Vazyme #Q111)

05.Xu C, Zhou Y, Xiao Q,et al. Programmable RNA editing with compact CRISPR-Cas13 systems from uncultivated microbes. *Nat Methods*. 2021May;18(5):499-506. IF:28.467 (Vazyme #Q511)

06.06. Hu Y, Chen J, Fang L, et al. Gossypium barbadense and Gossypium hirsutum genomes provide insights into the origin and evolution of allotetraploid cotton. *Nat Genet*. 2019 Apr;51(4):739-748.IF:25.455 (Vazyme #Q111)

07.Xu L, Cao Y, Xie Z, et al. The transcription factor TCF-1 initiates the differentiation of T(FH) cells during acute viral infection. *Nat Immunol*. 2015 Sep;16(9):991-9.IF:20.004 (Vazyme #Q111)

08.Guo C, Chi Z, Jiang D, et al. Cholesterol Homeostatic Regulator SCAP-SREBP2 Integrates NLRP3 Inflammasome Activation and Cholesterol Biosynthetic Signaling in Macrophages. *Immunity*. 2018 Nov 20;49(5):842-856.e7.IF:19.734 (Vazyme #Q111)

09.Bi, Y, Duan, W, Chen, J, et al. Neutrophil Decoys with Anti-Inflammatory and Anti-Oxidative Properties Reduce Secondary Spinal Cord Injury and Improve Neurological Functional Recovery. *Adv. Funct. Mater*. 2021, 2102912.IF: 18.808 (Vazyme #Q511)

10.Zhou H, Liu J, Zhou C, et al. In vivo simultaneous transcriptional activation of multiple genes in the brain using CRISPR-dCas9-activator transgenic mice. *Nat Neurosci*. 2018 Mar;21(3):440-446.IF:17.839 (Vazyme #Q111)

11. Gao N, Hu J, He B, et al. Endogenous promoter-driven sgRNA for monitoring the expression of low-abundance transcripts and lncRNAs. *Nat Cell Biol.* 2021 Jan;23(1):99-108. IF:17.728 (Vazyme #Q111)
12. Chen BY, Song J, Hu CL, et al. SETD2 deficiency accelerates MDS-associated leukemogenesis via S100a9 in NHD13 mice and predicts poor prognosis in MDS. *Blood.* 2020 Jun 18;135(25):2271-2285. IF:16.56 (Vazyme #Q511)
13. Chen S, Liu X, Peng C, et al. The phytochemical hyperforin triggers thermogenesis in adipose tissue via a Dlat-AMPK signaling axis to curb obesity. *Cell Metab.* 2021 Mar 2;33(3):565-580.e7. IF:16.083 (Vazyme #Q511)
14. Liu J, Li S, Fei X, et al. Increased alveolar epithelial TRAF6 via autophagy-dependent TRIM37 degradation mediates particulate matter-induced lung metastasis. *Autophagy.* 2021 Sep 15:1-19. IF:16.016 (Vazyme #Q221)
15. Chen J, Fang G, Pang L, et al. Neofunctionalization of an ancient domain allows parasites to avoid intraspecific competition by manipulating host behaviour. *Nat Commun.* 2021 Sep 16;12(1):5489. IF:15.805 (Vazyme #Q221)
16. Liu J, Chang B, Li Q, et al. Redox-Responsive Dual Drug Delivery Nanosystem Suppresses Cancer Repopulation by Abrogating Doxorubicin-Promoted Cancer Stemness, Metastasis, and Drug Resistance. *Adv Sci (Weinh).* 2019 Feb 4;6(7):1801987. IF:15.804 (Vazyme #Q111)
17. Wu Y, Hu Y, Wang B, et al. Dopamine Uses the DRD5-ARRB2-PP2A Signaling Axis to Block the TRAF6-Mediated NF-KB Pathway and Suppress Systemic Inflammation. *Mol Cell.* 2020 Apr 2;78(1):42-56. IF:15.58 (Vazyme #Q111)

Cell Biology/Protein Research

01. Ma Y, Bao J, Zhang Y, et al. Mammalian Near-Infrared Image Vision through Injectable and Self-Powered Retinal Nanoantennae. *Cell.* 2019 Apr 4;177(2):243-255.e15. IF :31.398 (Vazyme #A113)
02. Chen S, Wu JL, Liang Y, et al. Arsenic Trioxide Rescues Structural p53 Mutations through a Cryptic Allosteric Site. *Cancer Cell.* 2020 Dec 7;S1535-6108(20)30605-X. IF:26.602 (Vazyme #DL101)
03. Wang Y, Hu SB, Wang MR, et al. Genome-wide screening of NEAT1 regulators reveals cross-regulation between paraspeckles and mitochondria. *Nat Cell Biol.* 2018 Oct;20(10):1145-1158. IF:19.064 (Vazyme #A211)
04. Ling S, Yang S, Hu X, et al. Lentiviral delivery of co-packaged Cas9 mRNA and a Vegfa-targeting guide RNA prevents wet age related macular degeneration in mice. *Nat Biomed Eng.* 2021 Jan 4. IF:18.952 (Vazyme #A211)
05. Hao M, Hou S, Li W, et al. Combination of metabolic intervention and T cell therapy enhances solid tumor immunotherapy. *Sci Transl Med.* 2020 Nov 25;12(571):eaaz6667. IF:16.3 (Vazyme #A211)
06. Lin JW, Tang C, Wei HC, et al. Genomic monitoring of SARS-CoV-2 uncovers an Nsp1 deletion variant that modulates type I interferon response. *Cell Host Microbe.* 2021 Mar 10;29(3):489-502.e8. IF:15.923 (Vazyme #DL101)

Genome Editing

01. Wu H, Qu X, Dong Z, et al. WUSCHEL triggers innate antiviral immunity in plant stem cells. *Science.* 2020 Oct 9;370(6513):227-231. IF:41.84 (Vazyme #TR101)
02. Ling X, Chang L, Chen H, et al. Improving the efficiency of CRISPR-Cas12a-based genome editing with site-specific covalent Cas12a-crRNA conjugates. *Mol Cell.* 2021 Oct 5;S1097-2765(21)00773-5. IF:17.97 (Vazyme #EN303)

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