

PRODUCTS CITED IN CELL, SCIENCE, AND NATURE





TRANSGEN BIOTECH CO., LTD.

Literature	Journal	Year	Product Name	Cat. No.	Product Group
Rewiring of the Fruit Metabolome in Tomato Breeding	Cell	2018	<i>EasyPure</i> [®] Quick Gel Extraction Kit	EG101	Nucleic Acid Purification
Cytosine, but not adenine, base editors induce genome-wide off-target mutations in rice	Science	2019	<i>EasyPure</i> [®] PCR Purification Kit	EP101	Nucleic Acid Purification
Convergent selection of a WD40 protein that enhances grain yield in maize and rice	Science	2022			
Profound cellular defects attribute to muscular pathogenesis in rhesus monkey model of Duchenne muscular dystrophy	Cell	2024			
Mapping the Mouse Cell Atlas by Microwell-seq	Cell	2018	<i>EasyPure</i> [®] RNA Kit	ER101	Nucleic Acid Purification
Molecular basis of methyl-salicylate-mediated plant airborne defence	Nature	2023	<i>TransZol</i>	ET101	Nucleic Acid Purification
Biofortification of iron content by regulating a NAC transcription factor in maize	Science	2023	<i>TransZol</i> Plant	ET121	Nucleic Acid Purification



***EasyPure*[®] Quick Gel Extraction Kit (EG101)**

- Purification of fragments ranging from 100 bp to 10 kb.
- Fast purification in only 20 minutes.
- Color change indicates pH level is appropriate for DNA binding to column.



***EasyPure*[®] PCR Purification Kit (EP101)**

- Purification of fragments ranging from 100 bp to 10 kb.
- Fast purification in only 5 minutes.



***EasyPure*[®] PCR Purification Kit (ER101)**

- Column-based method, efficient RNA extraction, wide application range.



***TransZol* (ET101)**

- Isolate RNA from a variety of species: animal, plant, yeast, bacteria and virus.
- The whole procedure can be completed in one hour.
- Simultaneous isolation of RNA, DNA and protein from the same sample.
- Pink solution for easy visualizing different phases.
- Unique dissolving solution for long-term RNA storage.



***TransZol* Plant (ET121)**

- Superior lysis capability and higher RNA yield.
- The whole procedure can be completed in one hour.
- Pink solution for easy visualizing different phases.
- Unique dissolving solution for long-term RNA storage.

Literature	Journal	Year	Product Name	Cat. No.	Product Group
RNA editing restricts hyperactive ciliary kinases	Science	2021	2×EasyTaq® PCR SuperMix (+dye)	AS111	PCR
Derivation of Pluripotent Stem Cells with In Vivo Embryonic and Extraembryonic Potency	Cell	2017			
Anti-tumour immunity controlled through mRNA m6A methylation and YTHDF1 in dendritic cells	Nature	2019			
Distinct processing of lncRNAs contributes to non-conserved functions in stem cells	Cell	2020	2×TransTaq® High Fidelity (HiFi) PCR SuperMix	AS131	PCR
A neutralizing human antibody binds to the N-terminal domain of the Spike protein of SARS-CoV-2	Science	2020	TransStart® Taq DNA Polymerase	AP141	PCR
Mesoscale DNA Feature in Antibody-Coding Sequence Facilitates Somatic Hypermutation	Cell	2023	TransStart® FastPfu DNA Polymerase	AP221	PCR
Mitochondrial base editor induces substantial nuclear off-target mutation	Nature	2022			
A volatile from the skin microbiota of flavivirus-infected hosts promotes mosquito attractiveness	Cell	2022			
Structure-guided discovery of bile acid derivatives for treating liver diseases without causing itch	Cell	2024			
Mirror-image T7 transcription of chirally inverted ribosomal and functional RNAs	Science	2022	TransStart® FastPfu Fly DNA Polymerase	AP231	PCR
The β-d-manno-heptoses are immune agonists across kingdoms	Science	2024	PerfectStart® Taq DNA Polymerase	AP401	PCR
The Arabidopsis blue-light photoreceptor CRY2 is active in darkness to inhibit root growth	Cell	2024	High Pure dNTPs	AD101	PCR
The evolution and diversification of oakleaf butterflies	Cell	2022	TransDirect® Animal Tissue PCR Kit	AD201	Direct PCR



TransStart® FastPfu Fly DNA Polymerase (AP231)

- Offers 108-fold fidelity as compared to EasyTaq® DNA Polymerase.
- PCR products can be directly cloned into pEASY®-Blunt vectors.
- Amplification of genomic DNA fragment up to 15 kb.
- Amplification of plasmid DNA fragment up to 20 kb.



TransStart® Taq DNA Polymerase (AP401)

- Hot start and high specificity.
- High sensitivity.
- High amplification efficiency.
- Low E. coli genomic DNA residue.

Literature	Journal	Year	Product Name	Cat. No.	Product Group
A Gg protein regulates alkaline sensitivity in crops	Science	2023	<i>TransScript</i> [®] II Reverse Transcriptase	AH101	RT
Modulating plant growth–metabolism coordination for sustainable agriculture	Nature	2018	<i>EasyScript</i> [®] One-Step gDNA Removal and cDNA Synthesis SuperMix	AE311	RT
Enhanced sustainable green revolution yield via nitrogen-responsive chromatin modulation in rice	Science	2020			
A Zea genus-specific micropeptide controls kernel dehydration in maize	Cell	2024			
Derivation of Pluripotent Stem Cells with In Vivo Embryonic and Extraembryonic Potency	Cell	2017	<i>TransScript</i> [®] First-Strand cDNA Synthesis SuperMix	AT301	RT
Long-term functional maintenance of primary human hepatocytes in vitro	Science	2019	<i>TransScript</i> [®] First-Strand cDNA Synthesis SuperMix	AT301	RT
Derivation of Pluripotent Stem Cells with In Vivo Embryonic and Extraembryonic Potency	Cell	2017	<i>TransScript</i> [®] One-Step gDNA Removal and cDNA Synthesis SuperMix	AT311	RT
KLHL22 activates amino-acid-dependent mTORC1 signalling to promote tumorigenesis and ageing	Nature	2018			
SAR1B senses leucine levels to regulate mTORC1 signalling	Nature	2021			
Chemical reprogramming of human somatic cells to pluripotent stem cells	Nature	2022			
Molecular basis of methyl-salicylate-mediated plant airborne defence	Nature	2023			
Transplantation of Chemically Induced Pluripotent Stem-Cell-Derived Islet Under Abdominal Anterior Rectus Sheath in a Type 1 Diabetes Patient	Cell	2024			
Z-DNA binding protein 1 promotes heatstroke-induced cell death	Science	2022	<i>TransScript</i> [®] All-in-One First-Strand cDNA Synthesis SuperMix for qPCR (One-Step gDNA Removal)	AT341	RT
Mapping the Mouse Cell Atlas by Microwell-seq	Cell	2018			
WUSCHEL triggers innate antiviral immunity in plant stem cells	Science	2020			
A population of stem cells with strong regenerative potential discovered in deer antlers	Science	2023	<i>TransScript</i> [®] Uni All-in-One First-Strand cDNA Synthesis SuperMix for qPCR (One-Step gDNA Removal)	AU341	RT
Bone marrow hematopoiesis drives multiple sclerosis progression	Cell	2022	<i>TransScript</i> [®] Uni Cell to cDNA Synthesis SuperMix for qPCR	AC301	RT

***TransScript*[®] One-Step gDNA Removal and cDNA Synthesis SuperMix (AT311)**



- Simultaneous genomic DNA removal and cDNA synthesis in one tube to minimize RNA contamination.
- The product obtained from 15 minutes reaction is used for qPCR; the product obtained from 30 minutes reaction is used for PCR.
- After reaction, heat inactivation for RT/RI and gDNA remover simultaneously can avoid damage to RNA caused by heat inactivating DNase I used for pretreatment in traditional protocol.
- Easy to operate.
- cDNA up to 12 kb.



***TransScript*[®] Uni Cell to cDNA Synthesis SuperMix for qPCR (AC301)**

- Uses an unique lysis buffer to lyse cells. The resulting lysate (without purification) can be directly used as template for reverse transcription.
- Simultaneous genomic DNA removal and cDNA synthesis in one tube.
- This kit is suitable to generate qPCR-ready cDNA directly from cells.

Literature	Journal	Year	Product Name	Cat. No.	Product Group
A Gg protein regulates alkaline sensitivity in crops	Science	2023	<i>TransStart</i> [®] Green qPCR SuperMix UDG	AQ111	qPCR
A human embryonic limb cell atlas resolved in space and time	Nature	2023	<i>PerfectStart</i> [®] Green qPCR SuperMix	AQ601	qPCR
Microbial-host-isozyme analyses reveal microbial DPP4 as a potential antidiabetic target	Science	2023	<i>PerfectStart</i> [®] Green qPCR SuperMix (+Universal Passive Reference Dye)	AQ602	qPCR



***PerfectStart*[®] Green qPCR SuperMix(AQ601)**

- Blocking by 3 antibodies; high specificity, sensitivity and amplification efficiency; applicable to a wide range of species.
- Dual-cation buffer enhances specificity and reduces primer-dimer formation.
- Universal Passive Reference Dye for different instruments to correct differences in fluorescence detection between wells due to pipetting errors.



***PerfectStart*[®] Green qPCR SuperMix (+Universal Passive Reference Dye)(AQ602)**

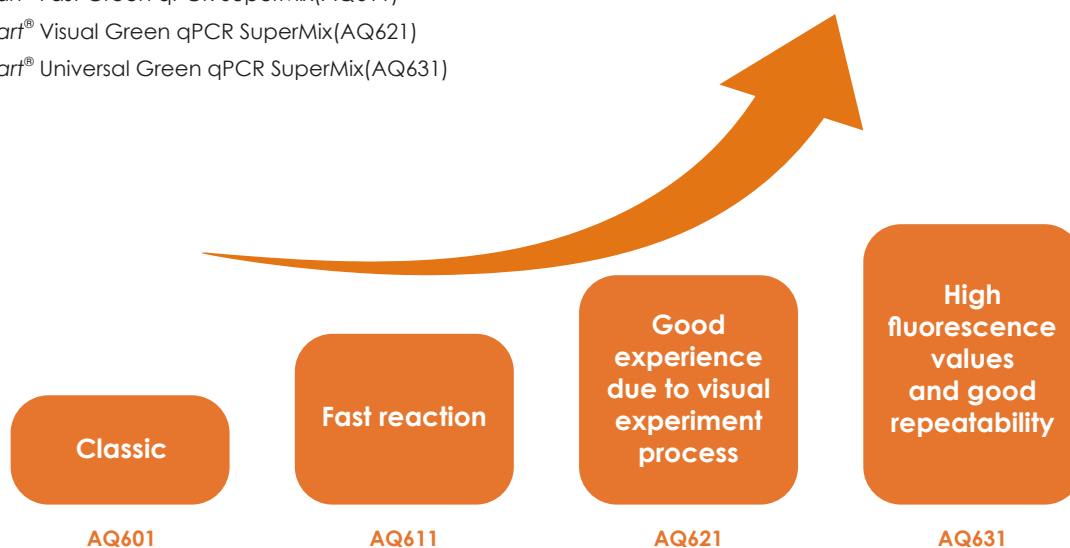
- Premixed universal ROX, compatible with all qPCR models on the market.
- Genomic DNA, plasmid DNA, cDNA and other samples, applicable to a wide range of species.

Related Products

PerfectStart[®] Fast Green qPCR SuperMix(AQ611)

PerfectStart[®] Visual Green qPCR SuperMix(AQ621)

PerfectStart[®] Universal Green qPCR SuperMix(AQ631)



Literature	Journal	Year	Product Name	Cat. No.	Product Group
The evolution and diversification of oakleaf butterflies	Cell	2022	pEASY®-T1 Cloning Kit	CT101	pEASY Cloning Vector
Recognition of cyclic dinucleotides and folates by human SLC19A1	Nature	2022			
Whitefly hijacks a plant detoxification gene that neutralizes plant toxins	Cell	2021			
Chemical reprogramming of human somatic cells to pluripotent stem cells	Nature	2022	pEASY®-T1 Simple Cloning Kit	CT111	pEASY Cloning Vector
Asymmetric Expression of LincGET Biases Cell Fate in Two-Cell Mouse Embryos	Cell	2018	pEASY®-T3 Cloning Kit	CT301	pEASY Cloning Vector
Convergent selection of a WD40 protein that enhances grain yield in maize and rice	Science	2022	pEASY®-T5 Zero Cloning Kit	CT501	pEASY Cloning Vector
Convergent selection of a WD40 protein that enhances grain yield in maize and rice	Science	2022			
"Perfect" designer chromosome V and behavior of a ring derivative	Science	2017	pEASY®-Blunt Cloning Vector	CB101	pEASY Cloning Vector
SIRT6 deficiency results in developmental retardation in cynomolgus monkeys	Nature	2018	pEASY®-Blunt Simple Cloning Kit	CB111	pEASY Cloning Vector
Enhancing rice panicle branching and grain yield through tissue-specific brassinosteroid inhibition	Science	2024			



pEASY®-T5 Zero Cloning Kit (CT501)

- 5 minutes fast ligation of Taq-amplified PCR products.
- High cloning efficiency. Positive clones up to 100%.
- No blue/white selection needed.
- Suitable for short and large fragment cloning.
- Kanamycin and Ampicillin resistance genes for selection.
- M13 forward primer and M13 reverse primer for sequencing.
- T3 promoter and T7 promoter for in vitro transcription.
- Trans1-T1 Phage Resistant Chemically Competent Cell, high transformation efficiency (>109 cfu/ µg pUC19 DNA) and fast growing.



pEASY®-Blunt Simple Cloning Kit (CB111)

- 5 minutes fast ligation of Pfu-amplified PCR products.
- Kanamycin and Ampicillin resistance genes for selection.
- Easy blue/white selection.
- SR primer and M13 forward primer for sequencing.
- T7 promoter for in vitro transcription.
- Trans1-T1 Phage Resistant Chemically Competent Cell, high transformation efficiency (>109 cfu/ µg pUC19 DNA) and fast growing.

Literature	Journal	Year	Product Name	Cat. No.	Product Group
Mirror-image T7 transcription of chirally inverted ribosomal and functional RNAs	Science	2022	pEASY®-Uni Seamless Cloning and Assembly Kit	CU101	Cloning kit
Stigma receptors control intraspecies and interspecies barriers in Brassicaceae	Nature	2023	pEASY®-Basic Seamless Cloning and Assembly Kit	CU201	Cloning kit
Structural basis for intrinsic transcription termination	Nature	2023			
lncRNA SLERT controls phase separation of FC/DFCs to facilitate Pol I transcription	Science	2021			
lncRNA SLERT controls phase separation of FC/DFCs to facilitate Pol I transcription	Science	2021			
Amplification editing enables efficient and precise duplication of DNA from short sequence to megabase and chromosomal scale	Cell	2024			
Distinct processing of lncRNAs contributes to non-conserved functions in stem cells	Cell	2020	Trans1-T1 Phage Resistant Chemically Competent Cell	CD501	Cloning Competent Cells
A Defense Pathway Linking Plasma Membrane and Chloroplasts and Co-opted by Pathogens	Cell	2020			
Nucleolar URB1 ensures 3' ETS rRNA removal to prevent exosome surveillance	Nature	2023			
A natural gene drive system confers reproductive isolation in rice	Cell	2023			
Mitochondrial base editor induces substantial nuclear off-target mutation	Nature	2022			
Recognition of cyclic dinucleotides and folates by human SLC19A1	Nature	2022			
Whitefly hijacks a plant detoxification gene that neutralizes plant toxins	Cell	2021			
Amplification editing enables efficient and precise duplication of DNA from short sequence to megabase and chromosomal scale	Cell	2024			
A Zea genus-specific micropeptide controls kernel dehydration in maize	Cell	2024			



pEASY®-Uni Seamless Cloning and Assembly Kit (CU101)

- Fast: 5~15 minutes
- Simple: No restriction enzyme digestions.
- High efficiency: > 95% cloning efficiency.
- Seamless: No extra sequences introduced.
- 1-7 fragments.



pEASY®-Basic Seamless Cloning and Assembly Kit (CU201)

- Fast: 5~15 minutes.
- Simple: No restriction enzyme digestions.
- High efficiency: > 95% cloning efficiency.
- Seamless: No extra sequences introduced.
- 1-5 fragments.

Literature	Journal	Year	Product Name	Cat. No.	Product Group
Resurrection of endogenous retroviruses during aging reinforces senescence	Cell	2023	Fast Mutagenesis System	FM111	Mutagenesis System
A Natural Allele of a Transcription Factor in Rice Confers Broad-Spectrum Blast Resistance	Cell	2017			
A single transcription factor promotes both yield and immunity in rice	Science	2018			
Liquid-Liquid Phase Transition Drives Intra-chloroplast Cargo Sorting	Cell	2020			
Pol IV and RDR2: A two-RNA-polymerase machine that produces double-stranded RNA	Science	2021			
Microbial-host-isozyme analyses reveal microbial DPP4 as a potential antidiabetic target	Science	2023			
ABLs and TMKs are co-receptors for extracellular auxin	Cell	2023			
Structural basis of exoribonuclease-mediated mRNA transcription termination	Nature	2024			
Modulating TRADD to restore cellular homeostasis and inhibit apoptosis	Nature	2020	TransDetect® PCR Mycoplasma Detection Kit	FM311	Mycoplasma Detection
Mitochondrial base editor induces substantial nuclear off-target mutation	Nature	2022			
Discovery of deaminase functions by structure-based protein clustering	Cell	2023			
Global miRNA dosage control of embryonic germ layer specification	Nature	2021	TransDetect® Double-Luciferase Reporter Assay Kit	FR201	Cell Detection
A plant immune protein enables broad antitumor response by rescuing microRNA deficiency	Cell	2022			
Mouse totipotent stem cells captured and maintained through spliceosomal repression	Cell	2021	TransLv™ Lentivirus qPCR Titration Kit	FV201	Lentivirus Related



TransDetect® PCR Mycoplasma Detection Kit (FM311)

- High Sensitivity-Able to detect as low as 20 copies of mycoplasma genome.
- High Specificity-Only detect mycoplasma DNA, not eukaryotic and bacterial DNA.
- Simple and Easy to Use-Ready-to-use, optimized master mix and no need for DNA extraction.
- Positive and Negative Control-Ensure reliability and accuracy of the results.



TransDetect® Double-Luciferase Reporter Assay Kit (FR201)

- Rapid detection, high sensitivity, wide detection range, and no interference with the endogenous activity of cells.



TransLv™ Lentivirus qPCR Titration Kit (FV201)

- Simple operation and high sensitivity.
- Higher accuracy enabled by internal reference gene.
- Compatible with the second and third generation HIV-1 lentiviral packaging vectors.
- Good linear relationship in the range of 10³-10⁸ copies/μl.

Literature	Journal	Year	Product Name	Cat. No.	Product Group
Structures of sperm flagellar doublet microtubules expand the genetic spectrum of male infertility	Cell	2023	<i>ProteinIso</i> [®] Ni-NTA Resin	DP101	Protein Purification
An autoimmune disease variant of IgG1 modulates B-cell activation and differentiation	Science	2018	<i>ProteinIso</i> [®] GST Resin	DP201	Protein Purification
Profound cellular defects attribute to muscular pathogenesis in rhesus monkey model of Duchenne muscular dystrophy	Cell	2024	<i>Blue Plus</i> [®] IV Protein Marker (10-180 kDa)	DM131	Protein Marker
RNA polymerase III is required for the repair of DNA double-strand breaks by homologous recombination	Cell	2021	<i>ProteinSafe</i> [™] Protease Inhibitor Cocktail, EDTA-free (100×)	DI101	Protease Inhibitor



***ProteinIso*[®] Ni-NTA Resin (DP101)**

- Large adsorption capacity, good selectivity, strong permeability, and easy regeneration.
- Choice for purification under non-deforming or denaturing conditions.



***ProteinIso*[®] GST Resin (DP201)**

- High efficiency (≥10 mg protein/ml filler)
- Purification of fusion proteins containing GST tags (such as: pGEX series)



***Blue Plus*[®] IV Protein Marker (10-180 kDa) (DM131)**

- Pre-stained bands can dynamically observe the electrophoresis state of proteins and clearly determine the effect of protein transfer
- Orange and green bands can easily determine the direction of transfer.
- Applicable to SDS-PAGE and WB. No His tag.



***ProteinSafe*[™] Protease Inhibitor Cocktail, EDTA-free (100×) (DI101)**

- All-in-one format: a mixture of broad-spectrum protease inhibitors to prevent proteolytic degradation.
- Ready to use: no need to thaw and dissolve the cocktail, just use directly.
- Compatibility: compatible with most of protein lysis buffers composed of detergent and do not interfere with protein quantitation.

Literature	Journal	Year	Product Name	Cat. No.	Product Group
TBK1 Suppresses RIPK1-Driven Apoptosis and Inflammation during Development and in Aging	Cell	2018	<i>ProteinFind</i> [®] Anti- β -Tubulin Mouse Monoclonal Antibody	HC101	Loading Control
Diverse CMT2 Neuropathies are Linked to Aberrant G3BP Interactions in Stress Granules	Cell	2023	<i>ProteinFind</i> [®] Anti- β -Actin Mouse Monoclonal Antibody	HC201	Loading Control
Immunoglobulin M Perception by Fc μ R	Nature	2022	<i>ProteinFind</i> [®] Goat Anti-Mouse IgG (H+L), HRP Conjugate	HS201	Secondary Antibody
Immunoglobulin M Perception by Fc μ R	Nature	2022	<i>ProteinFind</i> [®] Anti-His Mouse Monoclonal Antibody	HT501	Tag Antibody
RALF peptide signaling controls the polytubey block in Arabidopsis	Science	2022			
Structural basis of ubiquitin modification by the Legionella effector SdeA	Nature	2018			
Antagonistic RALF peptides control an intergeneric hybridization barrier on Brassicaceae stigmas	Cell	2023			
Stella safeguards the oocyte methylome by preventing de novo methylation mediated by DNMT1	Nature	2018	<i>ProteinFind</i> [®] Anti-GFP Mouse Monoclonal Antibody	HT801	Tag Antibody
HD-Zip proteins modify floral structures for self-pollination in tomato	Science	2024			
mTOR Regulates Phase Separation of PGL Granules to Modulate Their Autophagic Degradation	Cell	2018	RNase A	GE101	Other products
Allogeneic CD19-targeted CAR-T therapy in patients with severe myositis and systemic sclerosis	Cell	2024			
Allogeneic CD19-targeted CAR-T therapy in patients with severe myositis and systemic sclerosis	Cell	2024	Proteinase K	GE201	Other products
A neutralizing human antibody binds to the N-terminal domain of the Spike protein of SARS-CoV-2	Science	2020	RNase-free Water	GI201	Other products
m6A-modified cenRNA stabilizes CENPA to ensure centromere integrity in cancer cells	Cell	2024	<i>TransNGS</i> [®] rRNA Depletion Kit (Human/Mouse/Rat)	KD101	NGS



***TransNGS*[®] rRNA Depletion Kit (Human/Mouse/Rat) (KD101)**

- The kit can remove up to 99% ribosomal RNA from human/mouse/rat total RNA.
- Control qPCR Primer Sets are provided to monitor the depletion efficiency of ribosomal RNA and the retention rate of non-ribosomal RNA.



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