

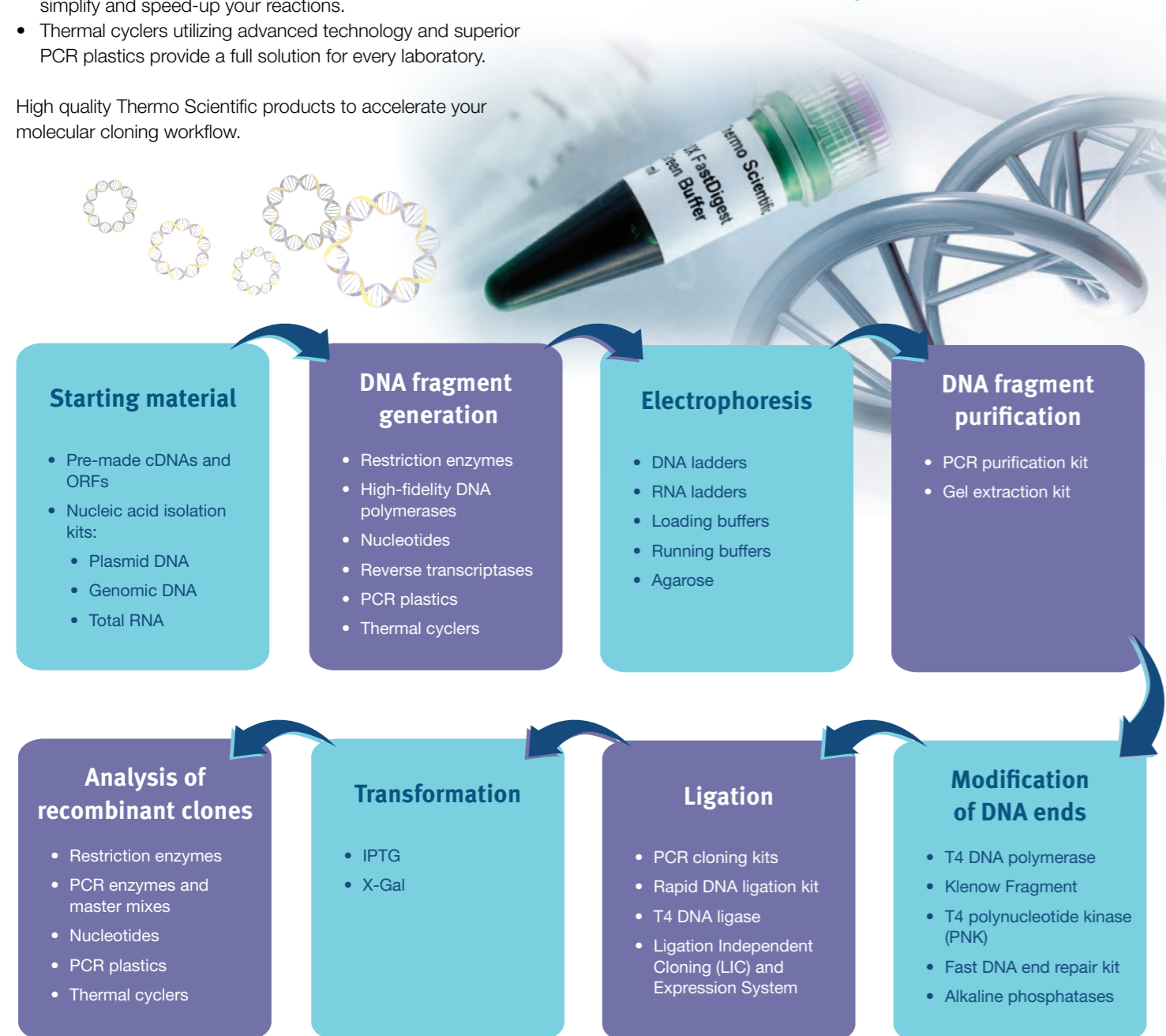
powerful tools to support your cloning workflow

Thermo Scientific products provide the best genetic content, superior enzymes and advanced PCR tools to support your entire cloning workflow.

- Fully-sequenced, pre-made cDNA and ORF clones as starting material provide a faster path to highly accurate gene analysis results.
- Nucleic acid purification kits facilitate isolation of high-quality DNA required for all steps in your cloning process.
- Best-in-class reverse transcriptases, highest fidelity DNA polymerases and fastest restriction and modifying enzymes simplify and speed-up your reactions.
- Thermal cyclers utilizing advanced technology and superior PCR plastics provide a full solution for every laboratory.

High quality Thermo Scientific products to accelerate your molecular cloning workflow.

The molecular cloning workflow encompasses several steps, from isolation of the starting material through the creation of a recombinant plasmid DNA.



Thermo Scientific Solutions for Cloning

For further information and to order tools for nucleic acid purification, digestion, modification and gel analysis visit:

www.thermoscientific.com/cloningtools

For further information and how to order PCR reagents, instruments or consumables visit:

www.thermoscientific.com/pcrsolutions

For further information and to order pre-made cDNAs and ORFs visit:

www.thermoscientific.com/cDNAsAndORFs

Customer Support:

North America: cs.molbio.eu@thermofisher.com

Europe: cs.molbio@thermofisher.com

Technical Support:

North America: ts.molbio@thermofisher.com

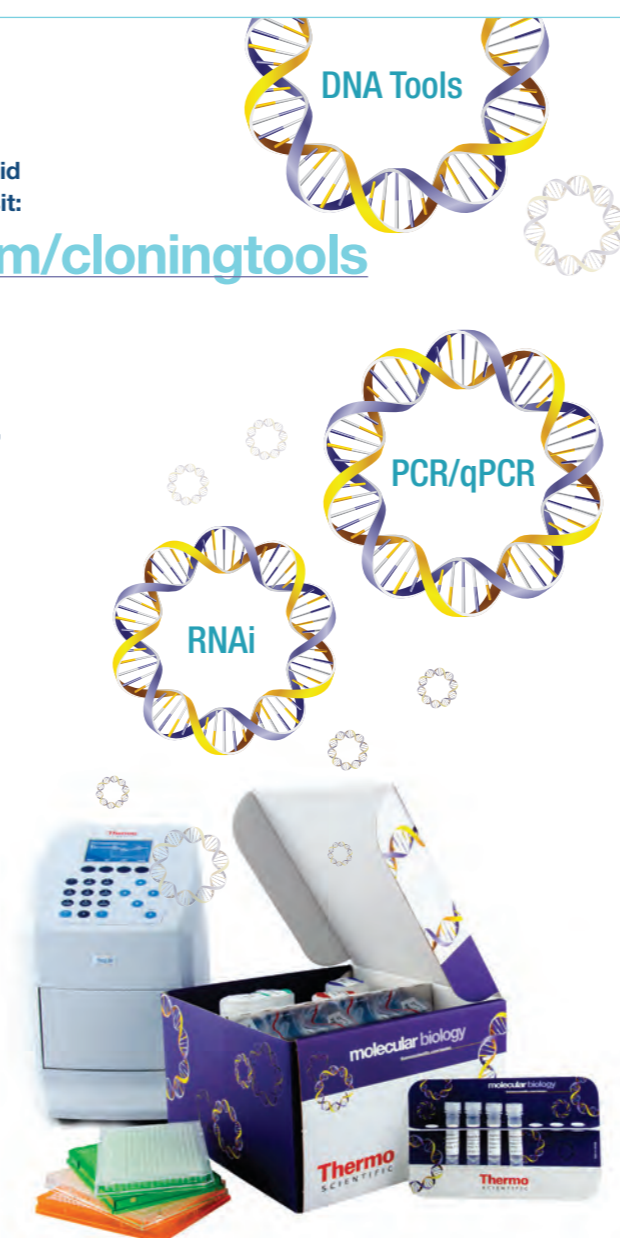
Europe: ts.molbio.eu@thermofisher.com

Euro Literature # PB 2011 14

US Literature # G0003211A01U

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Solutions for Cloning

- Tools for nucleic acid purification, digestion, modification and gel analysis
- PCR reagents, thermal cyclers and consumables
- Pre-made, fully sequenced cDNA and ORF clones

Thermo
SCIENTIFIC
Part of Thermo Fisher Scientific

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Thermo Scientific Molecular Biology Tools

for nucleic acid purification, digestion, modification and gel analysis

Restriction enzymes – Thermo Scientific FastDigest enzymes are an advanced line of restriction enzymes for rapid DNA digestion. All 176 FastDigest® enzymes are 100% active in the universal FastDigest Green buffer and capable of single, double or multiple DNA digestion in 5-15 minutes.

Modifying enzymes – High-quality DNA/RNA modifying enzymes such as polymerases, ligases, alkaline phosphatases, kinases and nucleases are produced in certified class D clean room facilities under the ISO 9001:2008 quality management system.

Cloning Kits – Enzymes and kits for efficient cloning of DNA and protein expression, including the Thermo

Scientific CloneJET positive selection system for PCR product cloning with the greatest speed and simplicity and the Thermo Scientific aLICator LIC Cloning and Expression System for directional cloning and expression.

Electrophoresis products – We supply the widest range of DNA and RNA ladders. All of our DNA and RNA ladders are assembled from chromatography-purified individual fragments and form exceptionally clear and sharp bands on gels.

Nucleic acid purification – Thermo Scientific GeneJET purification kits are simple, rapid and cost-effective systems for isolation of high-quality DNA and RNA from a variety of sources.

Category	Product Description	Cat #	Quantity	Cat #	Quantity
Restriction Enzymes	FastDigest Restriction Enzymes	See product list at www.thermoscientific.com/cloningtools			
Modifying Enzymes	T4 DNA Polymerase	EP0061	100 U	EP0062	500 U
	Klenow Fragment	EP0051	300 U	EP0052	1500 U
	FastAP™ Thermosensitive Alkaline Phosphatase	EF0651	1000 U	EF0652	5x1000 U
	T4 Polynucleotide Kinase	EK0031	500 U	EK0032	2500 U
	T4 DNA Ligase, 5 U/μL	EL0011	1000 U	EL0014	200 U
	T4 DNA Ligase, HC, 30 U/μL	EL0013	5000 U		
	T4 DNA Ligase, LC, 1 U/μL	EL0016	2 x 500 U		
	RNase A, DNase and protease-free	EN0531	10 mg		
	DNase I, RNase-free	EN0521	1000 U		
	RiboLock™ RNase Inhibitor	E00381	2500 U	E00382	4x2500 U
WelQu™ protease	E00861	500 U			
RNase H	EN0201	100 U	EN0202	500 U	
Cloning Kits	CloneJET™ PCR Cloning Kit	K1231	20 rxns	K1232	40 rxns
	Rapid DNA Ligation Kit	K1422	50 rxns	K1423	150 rxns
	Fast DNA End Repair Kit	K0771	50 rxns		
	aLICator™ LIC Cloning and Expression Kit 1 & 2	K1241	20 react.	K1251	20 react.
	aLICator LIC Cloning and Expression Kit 3 & 4	K1261	20 react.	K1281	20 react.
	aLICator LIC Cloning and Expression Set 1 & 2	K1271	30 react.	K1291	30 react.
Electrophoresis Products	GeneRuler™ 1 kb Plus DNA Ladder, ready-to-use	SM1334	50 μg	SM1333	5x50 μg
	GeneRuler 1 kb DNA Ladder, ready-to-use	SM0314	50 μg	SM0313	5x50 μg
	GeneRuler 100 bp Plus DNA Ladder, ready-to-use	SM0323	50 μg	SM0324	5x50 μg
	GeneRuler 100 bp DNA Ladder, ready-to-use	SM0243	50 μg	SM0244	5x50 μg
	GeneRuler 50 bp DNA Ladder, ready-to-use	SM0373	50 μg		
	6X DNA Loading Dye	R0611	5 x 1 mL		
	TopVision™ Agarose	R0491	100 g	R0492	500 g
Nucleic Acid Purification Kits	GeneJET™ Plasmid Miniprep Kit	K0502	50 preps	K0503	250 preps
	GeneJET Genomic DNA Purification Kit	K0721	50 preps	K0722	250 preps
	GeneJET RNA Purification Kit	K0731	50 preps	K0732	250 preps
	GeneJET PCR Purification Kit	K0701	50 preps	K0702	250 preps
	GeneJET Gel Extraction Kit	K0691	50 preps	K0692	250 preps
	GeneJET Plasmid Maxiprep Kit	K0491	10 preps	K0492	25 preps
	GeneJET Gel Extraction Kit	K0691	50 preps	K0692	250 preps

For further information and how to order:
www.thermoscientific.com/cloningtools

Thermo Scientific PCR

reagents, thermal cyclers and consumables

Maxima Reverse Transcriptases – These enzymes have been developed through *in vitro* evolution of M-MuLV reverse transcriptase to yield dramatically improved thermostability, robustness and increased synthesis rate compared to wild-type M-MuLV RT.

High-Fidelity DNA Polymerases – The Thermo Scientific Phusion High-Fidelity DNA Polymerases are an ideal choice for cloning applications. They provide market-leading accuracy, unparalleled speed, high yields and fewer reaction failures with minimal optimization.

Thermal cyclers – Small and fast Thermo Scientific Piko Thermal Cycler delivers best-in-class thermal performance in a compact package, and enables running PCR in as little as 15 minutes. The Thermo Scientific Arktik Thermal Cycler is a reliable and easy-to-use PCR instrument for the everyday requirements of any PCR laboratory.

Consumables – The Thermo Scientific PCR plastics are manufactured with industry-leading processes and extensive quality control, and are designed to ensure maximum PCR performance. The UTW® (ultra-thin wall) PCR plastics allow shorter PCR run times by improving heat transfer.

Category	Product Description	Cat #		Quantity		
Reverse Transcriptase	Maxima™ Reverse Transcriptase	EP0741	EP0742	2,000 U	10,000 U	
	Maxima H Minus Reverse Transcriptase	EP0751	EP0752	2,000 U	10,000 U	
	Maxima H Minus Double-Stranded cDNA Synthesis Kit	K2561		10 rxns		
	Phusion RT-PCR Kit	F-546S	F-546L	20 rxns	100 rxns	
PCR Reagents	Phusion High-Fidelity DNA Polymerase	F-530S	F-530L	100 U	500 U	
	Phusion High-Fidelity PCR Kit	F-553S	F-553L	125 x 20 μL rxns	500 x 20 μL rxns	
	Phusion High-Fidelity PCR Master Mix with HF Buffer	F-531S	F-531L	100 x 50 μL rxns	500 x 50 μL rxns	
	Phusion High-Fidelity PCR Master Mix with GC Buffer	F-532S	F-532L	100 x 50 μL rxns	500 x 50 μL rxns	
	Phusion Hot Start II High-Fidelity DNA Polymerase	F-549S	F-549L	100 U	500 U	
	Phusion Flash High-Fidelity PCR Master Mix	F-548S	F-548L	100 x 20 μL rxns	500 x 20 μL rxns	
	Phire Hot Start II DNA Polymerase	F-122S	F-122L	200 x 50 μL rxns	1000 x 50 μL rxns	
	PCR Plastics and Seals	0.2 mL PCR Tubes - Domed Cap	AB-0337		1000 tubes	
		0.2 mL PCR Tubes - Flat Cap	AB-0620		1000 tubes	
0.2 mL PCR Strip Tubes - Domed Cap		AB-0266		250 tube strips/cap strips		
0.2 mL PCR Strip Tubes - Flat Cap		AB-1182		250 tube strips/cap strips		
96-well PCR Plate, Non-Skirted		AB-0600		25 plates		
96-well PCR Plate, Semi-Skirted		AB-1400		25 plates		
96-well PCR Plate, Skirted, Low Profile		AB-0800		25 plates		
Armadillo 96-well PCR Plate		AB-2396		25 plates		
Armadillo 384-well PCR Plate		AB-2384		50 plates		
UTW Individual Tubes - Flat Cap		TUC0010		960 tubes		
UTW 8-tube Strips with attached flat caps*		TUC0080		120 strips		
Piko PCR Plate, 24-well		SPL0240		200 plates		
Piko PCR Plate, 96-well		SPL0960		200 plates		
Adhesive PCR Foil Seal		AB-0626		100 seals		
Adhesive PCR Film Seal		AB-0558		100 seals		
Optical Adhesive Film, Piko size		ASF0020		400 seals		
8-strip PCR Cap Strips, Domed	AB-0265		250 strips			
Category	Product Description	Product Description	Cat No.			
Thermal cyclers	Piko Thermal Cycler	24-well	TCP0024			
		96-well	TCP0096			
	Arktik Thermal Cycler	Arktik base*	TCA0001			
		Arktik base without gradient	TCA0002			
		Arktik 96-block	TCA0096			
		Arktik 48-dual block	TCA4848			
		Arktik 384-block	TCA0384			

*Arktik base with gradient is not available in US, Germany and Japan. UTW 8-tube strips are not available in US.

For further information and how to order: www.thermoscientific.com/pcrsolutions

Thermo Scientific cDNAs and Open Reading Frames (ORFs)

for reliable gene over-expression

Mammalian Gene Collection (MGC) – Pre-made, full-length cDNA clones for human, mouse, rat, and bovine species. High-quality, sequence guaranteed** and verified to contain a complete ORF.

Human ORFeome Collection – Broad gene coverage, Gateway™ Cloning System-adapted and available without a stop codon to allow fusion-tag cloning.

The ORFeome Collaboration Collection (OCC) – Fully sequenced Open Reading Frames (ORFs) for over-expression; Gateway™ Cloning System-adapted for easy portability and available with or without a stop codon.

Precision LentiORF Collection – Full-length, expression-ready lentiviral ORFs. Clone in custom fusion tags for flexibility.

	cDNA	ORFs		LentiORFs
	MGC	ORFeome Collaboration	Human ORFeome	Precision LentiORFs
Species				
Fully sequenced	Yes	Yes		***
Expression-ready	Subsets			Yes
Easy-to-transfer		Yes	Yes	
Fluorescent marker				Yes
Ready-to-use				Yes
Genome-scale	Yes	Yes	Yes	Yes
Format				

Species: Mouse, Human, Rat | Bacterial glycerol stock | Arrayed format | Precision LentiORF Starter Kits
Gene families and pathways | High-titer viral particles | Arrayed library format | Fluorescent marker

**Guaranteed to match GenBank™ Sequence Database- published sequence.

*** Created from fully sequenced ORFeome Collaboration clones.

Find your gene-specific cDNA or ORF using our gene search tool:

www.thermoscientific.com/cDNAsAndORFs

