



GENECRAFT®

PREISLISTE 2008

Dauerhaft im Preis gesenkt:

BioThermStar™ DNA Polymerase für Hot-Start PCR (Chemisch modifizierte BioTherm™ DNA Polymerase)	1000 U	€ 130,-	€ 250,-
BioThermAB™ DNA Polymerase für Hot-Start PCR (Mischung aus <i>Taq</i> Antikörper & BioTherm™ DNA Polymerase)	1000 U	€ 150,-	€ 300,-
dNTP-Sets 100 mM	Set 1: 4x 250 µl	€ 70,-	€ 75,-
	Set 4: 4x 1 ml	€ 180,-	€ 280,-
	Set 20: 4x 5 ml	€ 800,-	€ 1400,-
Biotin-11-dUTP 1 mM	100 nmol	€ 100,-	€ 150,-
1 kb Ladder	50 µg	€ 15,-	€ 27,5

Informationen
Preisliste
Neue Produkte

S. 2
S. 3-6
S. 7-15

Informationen

PREISLISTE:

Alle Preise sind Nettopreise. Wir versenden Ihnen unsere Produkte in allen gebräuchlichen Packungsgrößen. Die ersten 3 Ziffern der Katalognummer bezeichnen das Produkt, die letzten 4 Ziffern stehen für die Packungsgröße.

RABATTE:

Ab sofort erhalten Sie bei uns bis auf weiteres auf **alle** Brand Produkte **5% Rabatt**.

Wollen Sie eine Großbestellungen aufgeben oder haben Sie hohe Jahresabnahmemengen? Sprechen Sie uns an! Wir freuen uns, Ihnen ein persönliches Angebot zu unterbreiten.

PROBEN:

Möchten Sie unsere Produkte einmal austesten? Wir verschicken Ihnen gerne **kostenlose Proben** zu. Selbstverständlich berechnen wir dafür **keine Versand- & Verpackungskosten**.

EINFÜHRUNGSANGEBOT:

Bei Ihrer ersten Bestellung erhalten Sie von uns **20% Einführungsrabatt**.

AKTION:

Beim Kauf von insgesamt **5000U** thermostabiler DNA Polymerasen erhalten Sie von uns auf Wunsch **kostenlos** einen DNA Polymerization Mix 10.

SERVICE:

Wir liefern Ihnen alle unsere Produkte in unterschiedlichen Packungsgrößen nach Ihrem Wunsch - selbstverständlich **ohne Preisaufschlag**. So können Sie auch bei kleinen Bestellmengen von unseren günstigen Preisen profitieren. Bei GENE CRAFT gibt es **keine Mindestbestellmengen. Jede Bestellung ist willkommen**.

KONTO/FREEZER:

Selbstverständlich richten wir Ihnen auch gerne ein Konto ein oder stellen Ihnen einen Freezer ins Institut. Sollten Sie daran interessiert sein, so setzen Sie sich doch einfach mit uns in Verbindung.

DRUCKFEHLER IM KATALOG:

Bitte beachten Sie, dass die Grafiken für die 100 bp- & 1 kb DNA Ladder auf den Seiten 71 & 72 vertauscht sind.

LIEFERSERVICE & VERPACKUNG:

Produkte, die Sie vor 14:30 Uhr (Mo-Do) bestellen, werden noch am selben Tag durch UPS abgeholt und sind am nächsten Tag in Ihrem Labor. Für den Versand verwenden wir Kühlakkus, welche zuverlässig die notwendige Kühlung unserer Produkte während des Transportes gewährleisten. Alle Preise gelten zuzüglich der 19% Mehrwertsteuer. Für Bearbeitung, Verpackung & Versand werden innerhalb Deutschlands € 7,- für UPS Standard- oder € 15,- für UPS ExpressSaver-Versand berechnet. Bitte fragen Sie uns nach der für Sie optimalen Versandmethode. Die Lieferung erfolgt gegen offene Rechnung. Rechnungen sind innerhalb von 30 Tagen nach Rechnungsdatum zur Zahlung fällig.

Thermostabile DNA Polymerasen

Eine detaillierte Übersicht unserer thermostabilen DNA-Polymerasen finden Sie auch im Katalog auf Seite 4!

GC-067	2x SYBR® Green I real-time PCR-Mix ready-to-use real-time PCR-Mix mit HotStart <i>Taq</i> Polymerase	100 rxns (50 µl Ansatz)		NEW	90
GC-022	SupraTherm™ DNA polymerase <i>Taq</i> DNA polymerase	5 U/µl	1000 U		75
GC-002	BioTherm™ DNA polymerase <i>Taq</i> DNA polymerase	5 U/µl	1000 U		100
GC-021	BioThermRed™ DNA polymerase <i>Taq</i> DNA polymerase incl. Red dye zur besseren Visualisierung	5 U/µl	1000 U		115
GC-047	BioThermMix™ 2,5x Mix incl. BioTherm, Puffer & dNTPs		1 ml		30
GC-064	BioThermD-™ DNA polymerase hochaufgereinigte DNA-freie <i>Taq</i> DNA polymerase	5 U/µl	1000 U	NEW	110
GC-045	BioThermStar™ DNA polymerase chemisch modifizierte <i>Taq</i> DNA polymerase für Hot-Start PCR	5 U/µl	1000 U	250	130
GC-008	BioThermAB™ DNA polymerase Mischung aus <i>Taq</i> DNA polymerase mit <i>Taq</i> -Antikörper für Hot-Start PCR	5 U/µl	1000 U	300	150
GC-029-2	Hot Start <i>Taq</i> Monoclonal Antibody 8C1C Antikörper, der <i>Taq</i> polymerase Aktivität inhibiert. Für Hot-Start PCR	4 mg/ml	1 mg		490
GC-029-1	Hot Start <i>Taq</i> Monoclonal Antibody MGTpaq Antikörper, der <i>Taq</i> polymerase Aktivität inhibiert. Für Hot-Start PCR	4 mg/ml	1 mg		490
GC-057	BioThermBio™ DNA Polymerase <i>Taq</i> polymerase mit verbessertem Einbau von Biotin- & Digoxigenin-dUTP	5 U/µl	1000 U		150
GC-055	BioThermT™ DNA Polymerase <i>Taq</i> polymerase mit verbessertem Einbau von Biotin- & Digoxigenin-dUTP	5 U/µl	1000 U		150
GC-001	KlenTherm™ DNA polymerase Hitze stabilere <i>Taq</i> polymerase mit erhöhter Spezifität bis 1500 bp	10 U/µl	1000 U		125
GC-023	KlenThermN™ DNA polymerase Modifizierte KlenTherm für PCR von GC-reichen Fragmenten	10 U/µl	1000 U		175
GC-046	KlenThermPlatinum™ DNA polymerase Modifizierte KlenTherm mit sehr hoher Spezifität bis 500 bp	10 U/µl	1000 U		250
GC-018	KlenThermase™ Modifizierte KlenTherm für die DNA Sequenzierung	25 U/µl	1000 U		180
GC-018-500	KlenThermase™ Modifizierte KlenTherm für die DNA Sequenzierung	25 U/µl	5000 U	900	800
GC-063	20 x Super Enhancer Erhöhte Spezifität & Ausbeute auch bei schwierigeren Templates		0,5 ml	NEW	50
GC-004	AccuTherm™ DNA polymerase <i>Pfu</i> polymerase mit Proof-reading Eigenschaften	5 U/µl	1000 U		200
GC-061	BioThermPlus™ DNA polymerase Mischung aus BioTherm & AccuTherm mit Long-Distance Eigenschaften & Proof-reading Aktivität	5 U/µl	1000 U		150
GC-005	Synergy™ DNA polymerase Mischung aus KlenTherm & AccuTherm für Long-PCR	10 U/µl	1000 U		200
GC-028	SynergyN™ DNA polymerase Mischung aus KlenThermN & AccuTherm für Long-PCR von GC-reichen Fragmenten	10 U/µl	1000 U		250
GC-049	SynergyT™ DNA polymerase Mischung aus Synergy & <i>Tth</i> polymerase mit geringer Spezifität für PCR mit degenerierten Primern	10 U/µl	1000 U		300
GC-003	<i>Tth</i> Plus™ DNA polymerase <i>Tth</i> polymerase mit Reverser Transkriptase Aktivität für RT-PCR	5 U/µl	1000 U		150
GC-059-02	MagicTubes 0,2 ml Polymerbeschichtete Tubes für Hot-Start PCR		100 pcs/bulk+buffer		55
GC-059-05	MagicTubes 0,5 ml Polymerbeschichtete Tubes für Hot-Start PCR		100 pcs/bulk+buffer		50
GC-002-006	Extra 10x reaction buffer, complete		1,5 ml		5
GC-002-007	Extra 10x reaction buffer, without MgCl ₂		1,5 ml		5

Catalog No.	Product			€
GC-RE-017	Acs I	20 U/μl	1000 U	175
GC-RE-001	Alu I	20 U/μl	1000 U	45
GC-RE-018	Apa I	20 U/μl	1000 U	18
GC-RE-043	AspLE I (iso-Hha I)	20 U/μl	1000 U	20
GC-RE-044	AsuNH I (iso-Nhe I)	20 U/μl	1000 U	90
GC-RE-002	BamH I	20 U/μl	1000 U	10
GC-RE-057	Bgl I	20 U/μl	1000 U	40
GC-RE-003	Bgl II	20 U/μl	1000 U	30
GC-RE-039	Bse21 I (iso-Sau I)	20 U/μl	1000 U	125
GC-RE-056	Bsc4 I (iso-BseL I, -BsiY I, -Bse I)	20 U/μl	1000 U	90
GC-RE-019	Bsp19 I (iso-Nco I)	20 U/μl	1000 U	37
GC-RE-049	BstHP I (iso-Hpa I)	20 U/μl	1000 U	60
GC-RE-048	BstH2 I (iso-Hae II)	20 U/μl	1000 U	22
GC-RE-020	BsuR I (iso-Hae III)	20 U/μl	1000 U	4
GC-RE-052	Btr I (CAC/GTC)	5 U/μl	1000 U	UNIQUE! 1750
GC-RE-036	CciN I (iso-Not I)	20 U/μl	1000 U	80
GC-RE-004	Cla I	20 U/μl	1000 U	35
GC-RE-026	Dra I	20 U/μl	1000 U	20
GC-RE-005	EcoR I	20 U/μl	1000 U	10
GC-RE-028	EcoR V	20 U/μl	1000 U	20
GC-RE-047	Erh I (iso-Sty I)	20 U/μl	1000 U	16
GC-RE-058	Fau ND I (iso-Nde I)	20 U/μl	1000 U	38
GC-RE-027	Fok I	20 U/μl	1000 U	45
GC-RE-006	Hae III	20 U/μl	1000 U	10
GC-RE-007	Hind III	20 U/μl	1000 U	10
GC-RE-038	Hinf I	20 U/μl	1000 U	10
GC-RE-041	Hpa II	20 U/μl	1000 U	15
GC-RE-008	Kpn I	20 U/μl	1000 U	25
GC-RE-021	Ksp22 I (iso-Bcl I)	20 U/μl	1000 U	15
GC-RE-051	Kzo9 I (iso-Mbo I)	20 U/μl	1000 U	175
GC-RE-022	Mlu I	20 U/μl	1000 U	35
GC-RE-046	Mro XI (iso-Xmn I)	20 U/μl	1000 U	40
GC-RE-009	Msp I (iso-Hpa II)	20 U/μl	1000 U	10
GC-RE-029	Nco I	20 U/μl	1000 U	75
GC-RE-010	Not I	20 U/μl	1000 U	100
GC-RE-011	Nru I	20 U/μl	1000 U	50
GC-RE-053	Pci I (A/CATGT)	10 U/μl	1000 U	UNIQUE! 800
GC-RE-054	Psi I (TTA/TAA)	10 U/μl	1000 U	UNIQUE! 1500
GC-RE-023	Psp124B I (iso-Sac I)	20 U/μl	1000 U	25
GC-RE-030	Psp EI (iso-BstE II)	20 U/μl	1000 U	40
GC-RE-012	Pst I	20 U/μl	1000 U	10
GC-RE-035	Pvu II	20 U/μl	1000 U	10
GC-RE-031	Rsa I	20 U/μl	1000 U	40
GC-RE-013	Sal I	20 U/μl	1000 U	12
GC-RE-032	Sbf I	20 U/μl	1000 U	437
GC-RE-050	SfaN I	20 U/μl	1000 U	1800
GC-RE-024	Sfi I	20 U/μl	1000 U	25
GC-RE-045	Sfr303 I (iso-Sac II)	20 U/μl	1000 U	22
GC-RE-025	Sma I	20 U/μl	1000 U	24
GC-RE-033	Sph I	20 U/μl	1000 U	250
GC-RE-037	Ssp I	20 U/μl	1000 U	50
GC-RE-014	Taq I	20 U/μl	1000 U	10
GC-RE-042	Tru9 I (iso-Mse I)	20 U/μl	1000 U	175
GC-RE-015	Xba I	20 U/μl	1000 U	12
GC-RE-016	Xho I	20 U/μl	1000 U	10
GC-RE-034	Xma I	20 U/μl	1000 U	300
GC-RE-055	Zsp2I (iso-EcoT22I, -Mph1103I, -NsiI)	20 U/μl	1000 U	45

DNA/RNA modifizierende Enzyme

GC-016	GeneScript™ Reverse Transcriptase modified MMuLV RT, RNaseH minus	100 U/μl	1000 U		10
GC-066	GeneScriptPlus™ Reverse Transcriptase	200 U/μl	1000 U	NEW	16
GC-009	Klenow fragment	5 U/μl	1000 U		125
GC-006	Tth inorganic pyrophosphatase	5 U/μl	1000 U		180
GC-042	RNase-Inhibitor	10 U/μl	1000 U		50
GC-012	SP6 RNA polymerase	60 U/μl	1000 U		45
GC-011	T4 DNA ligase auf Wunsch mit 1 ml separater 50% PEG 4000-Lösung	10 Weiss U/μl	1000 U		60
GC-040	Tth DNA Ligase	40 U/μl	1000 U		50
GC-010	T4 polynucleotide kinase	10 U/μl	1000 U		35

Produkte für die Molekularbiologie

GC-013-001	dNTP set 1 (4x 250 μl)	100 mM, 25 μmol each		75	70
GC-013-001	dNTP set 4 (4x 1 ml)	100 mM, 100 μmol each		280	180
GC-013-001	dNTP set 20 (4x 5 ml)	100 mM, 500 μmol each		1400	800
GC-013-005	dNTP(GAC)/dUTP set	100 mM, 4 x 25 μmol			85
GC-013-002	DNA polymerization mix 20 (0,5 ml)	20 mM each solution, each 10 μmol			40
GC-013-004	DNA polymerization mix 10 (0,5 ml)	10 mM each solution, each 5 μmol			20
GC-013-006	dGTP	100 mM, 25 μmol			20
GC-013-007	dATP	100 mM, 25 μmol			20
GC-013-008	dTTP	100 mM, 25 μmol			20
GC-013-009	dCTP	100 mM, 25 μmol			20
GC-013-010	dUTP	100 mM, 25 μmol			30
GC-013-011	Biotin-11-dUTP	1mM, 100 nmol		150	100
GC-013-012	Flu-12-dUTP	50 nmol		NEW	100
GC-013-013	Rho-5-dUTP (Tamra-5-dUTP)	50 nmol		NEW	100
GC-013-014	AA-dUTP	10 mM, 1 μmol, 100 μl		NEW	15
GC-013-015	8-oxo-dGTP	10 mM, 1 μmol, 100 μl		NEW	150
GC-013-016	7-deaza-dGTP	10 mM, 1 μmol, 100 μl		NEW	50
GC-013-017	AZTTP	10 mM, 1 μmol, 100 μl		NEW	15
GC-013-018	BrdUTP	10 mM, 1 μmol, 100 μl		NEW	5
GC-013-019	ddNTP-Set (4x 100 μl)	10 mM, 1 μmol each		NEW	80
GC-050-001	pBS-SK-T-vector	50 ng/μl	1 μg		60
GC-050-002	pBS-KS-EcoRV-vector	300 ng/μl	1 μg		50
GC-015-002	λ DNA marker, BstEII digest		100 μg		30
GC-015-006	λ DNA marker, EcoRI digest		100 μg		30
GC-015-007	λ DNA marker, EcoRI/HindIII digest		100 μg		30
GC-015-008	λ DNA marker, HindIII digest		100 μg		30
GC-015-001	pBS DNA marker, Hpa II digest		50 μg		30
GC-015-003	1 kb Ladder		50 μg	275	15
GC-015-004	100 bp Ladder		50 μg		35
GC-015-009	100+50 bp Ladder		50 μg	NEW	50
GC-015-011	50 bp Ladder		50 μg	NEW	50
GC-017	Mega Pure DNA Purification Kit		50-100 preps		50
GC-026	CoverIt™ overlay for PCR reactions		1,5 ml		5
GC-030	Crystal violet		100 rxns		15

Catalog No. Product	€
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Agarose

GC-BMA-8 GeneCraft Agarose LSL 8100	500 g	342
GC-BMA-1 GeneCraft Agarose S 18000	100 g	230
GC-BMA-1 GeneCraft Agarose S-IM 18500	100 g	275

Acrylamid 4K Fertiglösungen

GC-A07-(09 für SDS-PAGE	500 ml	38
GC-A07-(21 für nicht denaturierende DNA-PAGE	500 ml	31
GC-A07-(33 für denaturierende DNA-PAGE	500 ml	33
GC-A2529 Acrylamid 4K Sammelgel-Lsg. (4%) für SDS-Page	125 ml	25
GC-A2941 Ammoniumpersulfat (APS) DNase/RNase free	100 g	12
GC-A1415 Laemmli (SDS-Tris-Glycerin)-buffer (10X)	500 ml	16
GC-A3945 TBE-Puffer (10X) DNase/RNase free	500 ml	14
GC-A1148 TEMED	100 ml	17

Verbrauchsartikel

GeneCraft vertreibt Plastikverbrauchsartikel der Firma **Alpha Laboratories** Ltd. Sollten Sie an weiteren Informationen Exemplarisch möchten wir Ihnen folgende **Alpha**-Produkte präsentieren:

LW2470	Alpha twistlock 1,5 ml microcentrifuge tubes	500 pcs	21
LW8981	Alpha ATLAS Starter Kit (1 Loader, 960 yellow tips, 10 empty racks)		216
LW8980	Alpha empty racks	10 pcs	21
LW8991	Alpha ATLAS refill yellow tip pack	9600 pcs	280
LW2372	Alpha 1,5 ml microcentrifuge tubes	1000 pcs	23
LW6361	Alpha pipet yellow tips	1000 pcs/bulk	16
LW6461	Alpha pipet blue tips	1000 pcs/bulk	21
LW1075	Alpha Aerogard filter yellow tips	96/Rack x 10	88
LW1058	Alpha Aerogard filter yellow tips	1000 pcs/bulk	44
LW1266	Alpha Aerogard filter blue tips	100/Rack x 10	88
LW1298	Alpha Aerogard filter blue tips	1000 pcs/bulk	44
LW2130	Alpha 0,2 ml PCR tube plus cap	1000 pcs	50
LW2170	Alpha 0,2 ml Flat Cap PCR tube	1000 pcs	66
LW2510	Alpha 0,2 ml PCR 8-strip tube with attached cap	960 pcs	115
LW2145	Alpha 0,6 ml PCR tube with attached cap	1000 pcs	38
LW2175	Alpha 0,5 ml Flat Cap PCR tube	1000 pcs	50
LW2796	Alpha 96 Well Cycler Plate	10 plates	47
LW2140	Alpha 8 strip dome caps	120 strips	18



GENECRAFT®

NEW Products

2x SYBR® Green I Hot-Start real-time PCR-Mix

FOR RESEARCH USE ONLY

Cat. GC-067

DESCRIPTION

2x SYBR® Green I Hot-Start real-time PCR-Mix is a 2x-concentrated, ready-to-use reaction cocktail containing all components, except primers, for the amplification and detection of DNA in real-time quantitative PCR with intercalating dye SYBR® Green I.

Recombinant Q-Therm™ Taq DNA polymerase is a variant of Taq DNA polymerase with a genetically modified *pol* gene providing a hot start for PCR. The modification renders the enzyme inactive at 37°C. At temperatures over 68°C the enzyme restores its activity. Pre-heating at 95°C is not needed to activate this enzyme.

CONCENTRATION 2x

STORAGE TEMPERATURE

Store 2x SYBR® Green I Hot-Start real-time PCR-Mix at -15 to -25°C. For short-term storage the master mix may be stored at +2 to +8°C. Keep the master mix away from light. Avoid repeated freezing and thawing.

2X PCR MIX COMPOSITION

Q-Therm™ Taq DNA polymerase 0.05 units/μl

20 mM Tris-HCl pH 8.8 (at 25°C)

110 mM KCl

0.05% Tween-20

5 mM MgCl₂

dNTPs 0.4 mM of each

SYBR® Green I

PACK SIZE

GC-067-100

2x 1,25 ml (for 100 reactions in 50 μl assay)

Manual for 2x SYBR[®] Green I Hot-Start real-time PCR-Mix

For 25 µl real-time PCR reaction add the following components:

	volume	final concentration
2x SYBR [®] Green I Hot-Start real-time PCR-Mix	12.5 µl	x1
forward primer	X µl*	50 – 300 nM
reverse primer	X µl*	50 – 300 nM
sample (cDNA, plasmide DNA or genomic DNA)	X µl**	20 -50 ng/reaction
H ₂ O	to 25 µl	

* volume depends on primers initial concentration. ** volume depends on template initial concentration.

Amplification protocol (for Bio-Rad iCycler):

	temperature	time	number of cycles
pre-denaturation	95°C	1 min	
Denaturation	95°C	10 sec	x40
Annealing	T° primers annealing *	~ 10 sec ***	
Extension	72°C	~ 10 sec ****	
data collection	T° amplicon melting **	10 sec	
melt curve construction	55°C (increase setpoint temperature after each step by 0,5°)	10 sec	x80

* primers annealing temperature is selected experimentally. As the «starting point» use temperature calculated by means of appropriate program (for example AnnHyb or Oligo analyzer). ** amplification product melting temperature is defined by melting curve analysis. *** anneal time depends on primer structure and is selected experimentally. **** extension time depends on amplicon length. Preliminary as the starting point.

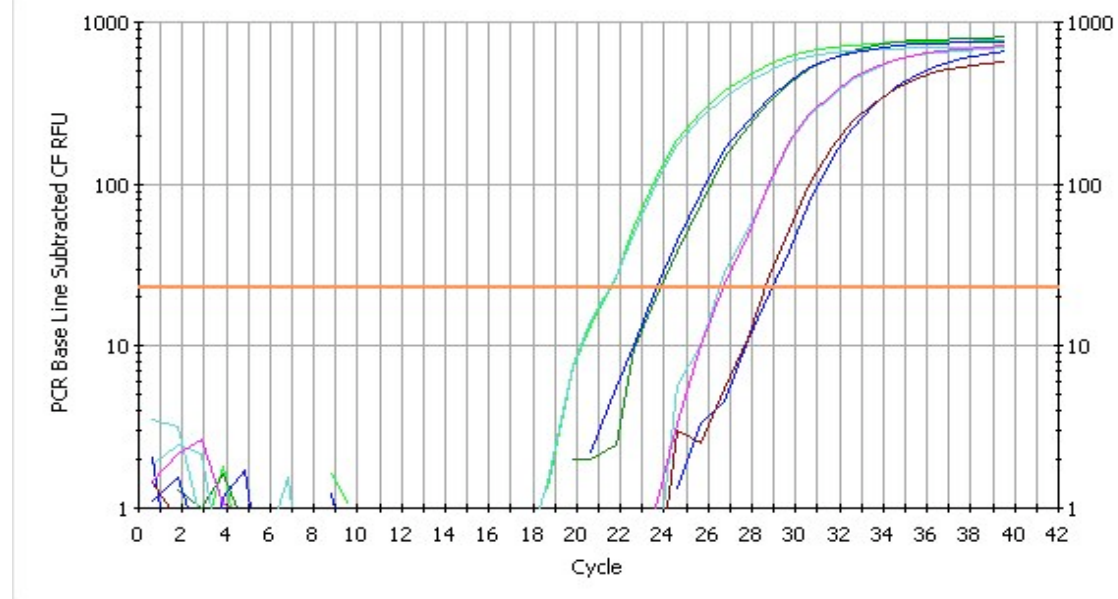
An example of the quantitative PCR with human PII gene primers and the standard curve construction is given below:

	volume	working concentration
2x SYBR [®] Green I Hot-Start real-time PCR-Mix	12.5 µl	x1
forward primer (1.5 µM)	5 µl	300 nM
reverse primer (1.5 µM)	5 µl	300 nM
cDNA sample	2.5 µl	Use four point. cDNA concentration for the first point is 40 ng/reaction. cDNA concentration for the each of the subsequent point four time less than for the previous point.

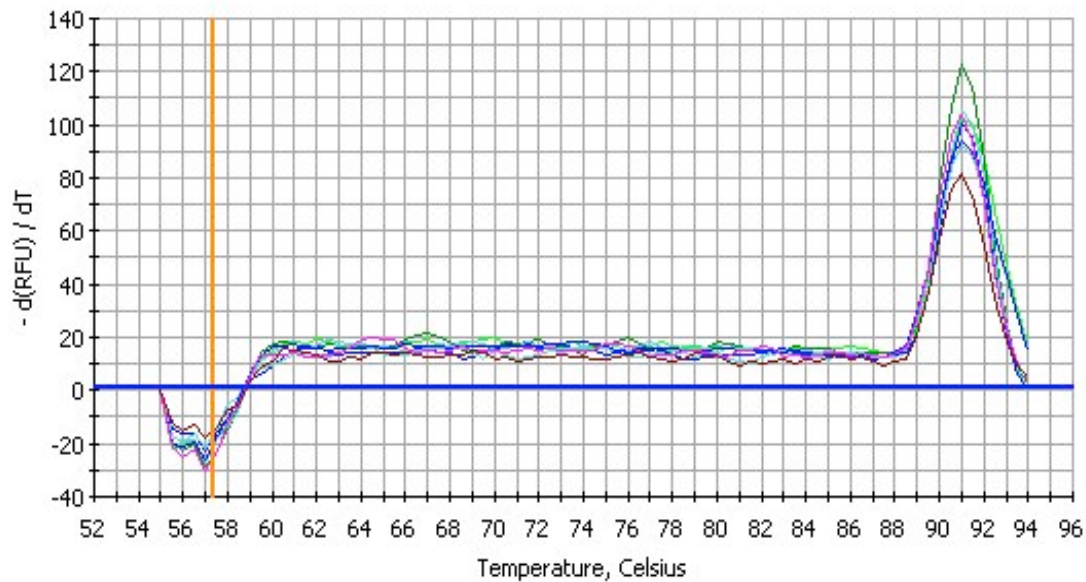
Amplification protocol (Bio-Rad iCycler):

	temperature	time	number of cycles
pre-denaturation	95°C	1 min	
denaturation	95°C	10 sec	x40
annealing	63°C	6 sec	
extension	72°C	6 sec	
data collection	88°C	10 sec	
melt curve construction	55°C (increase setpoint temperature after each step by 0,5°)	10 sec	x80

PCR amplification curve



Melting curve



Standard curve

Correlation Coefficient: 0.998 Slope: -4.026 Intercept: 33.796 $Y = -4.026 X + 33.796$
 PCR Efficiency: 77.2 %

□ Unknowns
 ○ Standards



BioThermPlus™ DNA Polymerase

FOR RESEARCH USE ONLY

Cat. GC-061

DESCRIPTION

BioThermPlus™ DNA polymerase is designed for maximum PCR success.

It is a blend of BioTherm™ DNA polymerase and AccuTherm™ DNA polymerase which allows amplification of longer templates with greater success and higher yields than each individual enzyme alone. Together with an optimized buffer BioThermPlus™ DNA polymerase provides the highest success rate of any PCR enzyme or enzyme blend. The enzyme formulation produces high PCR product yield from a wide variety of templates up to 10 kb. It also provides superior sensitivity by amplifying samples where starting material is limited.

CONCENTRATION

5 units/μl

UNIT DEFINITION

One unit is defined as the amount of enzyme that incorporates 10 nmoles of dNTPs into acidinsoluble form in 30 minutes at 72°C under the assay conditions (25 mM TAPS (tris-(hydroxy-methyl)-methyl-amino-pro-panesulfonic acid, sodium salt) pH 9.3 (at 25°C); 50 mM KCl; 2 mM MgCl₂; 1 mM β-mercaptoethanol) and activated calf thymus DNA as substrate.

STORAGE BUFFER

10 mM K-phosphate buffer pH 7.0, 100 mM NaCl, 0.5 mM EDTA, 1 mM DTT, 0.01% Tween 20, 50% glycerol(v/v)

STORAGE TEMPERATURE

Store BioThermPlus™ DNA polymerase below 0°C, preferably at -20°C, in a constant temperature freezer.

10X REACTION BUFFER

160 mM (NH₄)₂SO₄, 670 mM Tris-HCl pH 8.8 (at 25°C), 15 mM MgCl₂, 0.1% Tween 20
The 10x reaction buffer (on request with or without MgCl₂) is delivered free of charge.

1.5 ml 10x reaction buffer (contains 15 mM MgCl₂) Cat. No. **GC-002-006**

1.5 ml 10x reaction buffer without MgCl₂ plus 50 mM MgCl₂ separately Cat. No. **GC-002-007**

REFERENCES

- 1 Kaledin, A.S., et al. (1980) Biokhimiya 45, 494
- 2 Kaledin, A.S., et al. (1981) Biokhimiya 45, 1576
- 3 Kaledin, A.S., et al. (1982) Biokhimiya 47, 1785

PACK SIZE

GC-061-0100	GC-061-0250	GC-061-0500	GC-061-1000	GC-061-5000
100 u	250 u	500 u	1000 u	5000 u

BioThermD-™ DNA Polymerase

FOR RESEARCH USE ONLY

Cat. GC-064

DESCRIPTION	BioThermD-™ DNA polymerase is a special purified DNA polymerase without any traces of <i>E. coli</i> DNA. It is optimal for the amplification and sequencing of 16S rRNA genes to identify bacteria.				
CONCENTRATION	5 units/μl				
UNIT DEFINITION	One unit is defined as the amount of enzyme that incorporates 10 nmoles of dNTPs into acidinsoluble form in 30 minutes at 72°C under the assay conditions (25 mM TAPS (tris-(hydroxy-methyl)-methyl-amino-pro-panesulfonic acid, sodium salt) pH 9.3 (at 25°C); 50 mM KCl; 2 mM MgCl ₂ ; 1 mM β-mercaptoethanol) and activated calf thymus DNA as substrate.				
STORAGE BUFFER	10 mM K-phosphate buffer pH 7.0, 100 mM NaCl, 0.5 mM EDTA, 1 mM DTT, 0.01% Tween 20, 50% glycerol(v/v)				
STORAGE TEMP.	Store BioThermD-™ DNA polymerase below 0°C, preferably at -20°C, in a constant temperature freezer.				
10X REACT. BUFFER	160 mM (NH ₄) ₂ SO ₄ , 670 mM Tris-HCl pH 8.8 (at 25°C), 15 mM MgCl ₂ , 0.1% Tween 20 The 10x reaction buffer (on request with or without MgCl ₂) is delivered free of charge. 1.5 ml 10x reaction buffer (contains 15 mM MgCl ₂) Cat. No. GC-002-006 1.5 ml 10x reaction buffer without MgCl ₂ plus 50 mM MgCl ₂ separately Cat. No. GC-002-007				
PACK SIZE	GC-064-0100 100 u	GC-064-0250 250 u	GC-064-0500 500 u	GC-064-1000 1000 u	GC-064-5000 5000 u

20x SUPER ENHANCER FOR PCR

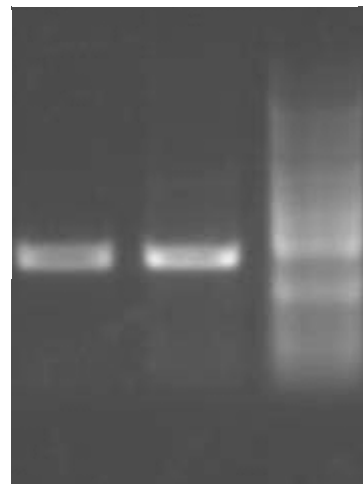
FOR RESEARCH USE ONLY

Cat. GC-063-0500

DESCRIPTION	SUPER ENHANCER is a special concentrated additive for use in reactions involving a DNA polymerase, such as PCR, DNA sequencing and a reverse-transcription reaction. SUPER ENHANCER provides an efficient PCR-amplification of "difficult" templates and a dramatic improvement of reaction specificity. SUPER ENHANCER is more efficient in PCR than conventional PCR enhancers such as DMSO and Betaine. Concentrated SUPER ENHANCER is recommended for use with any DNA polymerases as a 10x – 20x additive, in other words the addition of 1/20 - 1/10 v/v of SUPER ENHANCER to reaction mixture provides a dramatic improvement of DNA polymerase reaction specificity and yield. The advantages of SUPER ENHANCER can be especially revealed at the PCR-amplification of "difficult" templates such as GC-rich DNA sequences or templates with complex structure.					
CONCENTRATION	20x			1	2	3
PACK SIZE	0,5 ml					
STORAGE TEMP.	Store at -20°C					

Successful PCR-amplification of difficult template with SUPER ENHANCER

A 700-bp DNA fragment was amplified from genomic DNA in presence of 1/10 v/v (lane 1) and 1/20 v/v (lane 2) SUPER ENHANCER. Lane 3 – PCR was performed under conventional conditions without extra additives



GeneScriptPlus™ Reverse Transcriptase

FOR RESEARCH USE ONLY

Cat. GC-066

DESCRIPTION

GeneScriptPlus™ Reverse Transcriptase is an optimized mutant of GeneScript™ Reverse Transcriptase that is active at 55°C and has a half-life of 15 minutes, providing increased specificity with Gene-Specific Primers (GSPs) and the highest cDNA yield of all RTs. It is ideal for RT-PCR of a specific gene or generating cDNA from total or poly (A)+ RNA sample. It synthesizes a complementary DNA strand from single-stranded RNA or DNA. GeneScriptPlus™ is genetically engineered by the introduction of point mutations that reduce RNase activity and increase thermal stability. The structural modifications provide:

- Full activity at 55°C for increased specificity with GSP
- Ability to increase RT units without inhibiting subsequent PCR

CONCENTRATION

200 units/μl

UNIT DEFINITION

One unit is defined as the amount of enzyme that incorporates 1 nmol of dTTP into acid insoluble form in 10 minutes at 37°C using poly(rA)-oligo(dt) 10-20 as template primer.

STORAGE BUFFER

50 mM Tris-HCl pH 8.3, 1 mM EDTA, 0.1 mM DTT, 0.1 mM NaCl, 0.1% Triton X-100, 50% glycerol (v/v)

STORAGE TEMPERATURE

Store GeneScriptPlus™ Reverse Transcriptase below 0°C, preferably at -20°C, in a constant temperature freezer.

5X REACTION BUFFER

250 mM Tris-HCl pH 8.3, 15 mM MgCl₂, 400 mM KCl

Add to buffer: dNTPs (end concentration 2 mM), MnCl₂, (end concentration 2-4 mM), and DTT (end concentration 10 mM).

EXTRA SOLUTIONS

25 mM MnCl₂, 100 mM DTT

UNIT ASSAY CONDITIONS

20 mM Tris-HCl pH 8.0, 2 mM MnCl₂, 100 mM KCl, 1 mM DTT, 0.6 mM poly rA, 0.1 mM poly(dT)10-20, 0.5 mM dTTP(³H) – 0.5-5 units of enzyme

QUALITY ASSURANCE

GeneScriptPlus™ Reverse Transcriptase is tested for its ability to synthesize full length cDNA from 4kb RNA.

PACK SIZE

GC-066-0100

100 u

GC-066-0250

250 u

GC-066-0500

500 u

GC-066-1000

1000 u

GC-066-5000

5000 u

50 bp DNA Ladder

FOR RESEARCH USE ONLY

Cat. GC-015-011

Lot. #0905

DESCRIPTION	Plasmid DNA was completely digested with endonuclease restriction, phenol/chlorophorm extracted, ethanol precipitated and dissolved in storage buffer.
RANGE	The DNA Ladder yields the following 22 discrete fragments (in base pairs): 1000x2 , 950, 900, 850, 800, 750x2 , 700, 650, 600, 550, 500x2 , 450, 400, 350, 300, 250x2 , 200, 150, 100, 50x2
CONCENTRATION	0,1 µg/µl
PACK SIZE	50 µg in 500 µl in loading buffer (0.25% bromphenol blue, 0.25% xylene cyanol FF, 40% sucrose in water).
STORAGE BUFFER	10mM Tris-HCl (pH 8.0) and 1mM EDTA.

100+50 bp DNA Ladder

FOR RESEARCH USE ONLY

Cat. GC-015-009

Lot. #0905

DESCRIPTION	Plasmid DNA was completely digested with endonuclease restriction, phenol/chlorophorm extracted, ethanol precipitated and dissolved in storage buffer.
RANGE	The DNA Ladder yields the following 22 discrete fragments (in base pairs): 1000x2 , 950, 900, 850, 800, 750, 700, 650, 600, 550, 500x2 , 450, 400, 350, 300, 250, 200, 150, 100, 50.
CONCENTRATION	0,1 µg/µl
PACK SIZE	50 µg in 500 µl in loading buffer (0.25% bromphenol blue, 0.25% xylene cyanol FF, 40% sucrose in water).
STORAGE BUFFER	10mM Tris-HCl (pH 8.0) and 1mM EDTA.

Flu-12-dUTP

Fluorescein-5(6)-carboxamidocaproyl-[5-(3-aminoallyl)-2'-deoxyuridine 5'-triphosphate]

Cat. GC-013-012

DESCRIPTION	Flu-12-dUTP is used for the fluorescent labelling of DNA by terminal deoxynucleosidtransferase or DNA-polymerase.
CONCENTRATION	1 mM
STORAGE	-20°C
PURITY	96 – 99 % according to HPLC analysis.
PACK SIZE	50 µl (50 nmol)

Rho-5-dUTP (Tamra-5-dUTP)

Tetramethylrhodamin-5(6)-[5-(3-carboxaminoallyl) 2'-deoxyuridine 5'-triphosphate]

Cat. GC-013-013

DESCRIPTION	Fluorescent labeling of DNA by terminal deoxynucleotidyl transferase or DNA-polymerases.
CONCENTRATION	1 mM
STORAGE	-20°C
PURITY	96 – 99 % according to HPLC analysis.
PACK SIZE	50 µl (50 nmol)

AA-dUTP

5-(3-aminoallyl)-2'-deoxyuridine 5'-triphosphate

Cat. GC-013-014

DESCRIPTION	AA-dUTP can be used for enzymatic indirect non-radioactive labeling of DNA in PCR, nick-translation, cDNA synthesis or primer extension reactions. It can be incorporated into DNA using Reverse Transcriptases, Taq DNA Polymerase, Klenow Fragment. The resulting aminoallyl-containing DNA can be subsequently labeled with any amine-reactive fluorescent dye, biotin or hapten, resulting in a uniform and high density labeling of DNA.
CONCENTRATION	10 mM
STORAGE	-20°C
PURITY	96 – 99 % according to HPLC analysis.
PACK SIZE	100 µl (1 µmol)

8-oxo-dGTP

8-oxo-2'-deoxyguanosine-5'-triphosphate

Cat. GC-013-015

CONCENTRATION	10 mM
FORMULA	C ₁₀ H ₁₂ N ₅ O ₁₄ P ₃
MW	519.15 (Anion)
STORAGE	-20°C
PURITY	96 – 99 % according to HPLC analysis.
PACK SIZE	100 µl (1 µmol)

7-deaza-dGTP

7-deaza-2'-deoxyguanosine-5'-triphosphate

Cat. GC-013-016

DESCRIPTION

7-deaza-dGTP may be effectively incorporated into the DNA by DNA polymerases and/or terminal deoxynucleotidyltransferase. 7-deaza-dG - containing DNA duplexes demonstrate increased stability, 7-deaza-dG - containing DNA penetrates cell membrane more effectively due to the increased lipophilicity.

7-deaza dGTP may be used in sequencing for the resolution of the compressions in G-C-rich regions. Amplification of some DNA regions is often hindered due to the high G-C content. Replacement of dGTP to 7-deaza dGTP in the master mix may solve the problems.

CONCENTRATION

10 mM

STORAGE

-20°C

PURITY

96 – 99 % according to HPLC analysis.

PACK SIZE

100 µl (1 µmol)

AZTTP

3'-Azido-3'-Deoxythymidine-5'-Triphosphate

Cat. GC-013-017

DESCRIPTION

AZT is a widely used antiviral agent. AZT penetrates the cell membrane and is converted into AZT triphosphate which inhibits the reaction of reverse transcription. AZT triphosphate can be used for inhibition of reverse transcription in vitro and for the investigation of polymerase-substrate interactions.

CONCENTRATION

10 mM

STORAGE

-20°C

PURITY

96 – 99 % according to HPLC analysis, inhibition of DNA-polymerase activity

PACK SIZE

100 µl (1 µmol)

BrdUTP

5-Bromo-2'-Deoxyuridine-5'-Triphosphate

Cat. GC-013-018

DESCRIPTION

BUdR triphosphate can be used for incorporating into DNA for the subsequent detection with anti-BUdR antibodies. BUdR triphosphate incorporation into DNA is also a tool for random-mutation introduction.

CONCENTRATION

10 mM

STORAGE

-20°C

PURITY

96 – 99 % according to HPLC analysis, effective incorporation into DNA in PCR.

PACK SIZE

100 µl (1 µmol)

ddNTP-Set

2',3'-dideoxynucleoside-5'-triphosphates (ddATP, ddGTP, ddCTP & ddTTP)

Cat. GC-013-019

DESCRIPTION

For sequencing of DNA by the methods of Sanger and cycle sequencing.

CONCENTRATION

10 mM

STORAGE

-20°C

PURITY

96 – 99 % according to HPLC analysis

PACK SIZE

4x 100 µl (1 µmol each)