

GENEWIZ, Inc. DNA Sequencing Service Details for USC Norris Comprehensive Cancer Center DNA Core

DNA Sequencing Services

- **Pre-Mixed**
 - Provide template and primer, mixed into the same tube*
- **Pre-Defined**
 - Provide template and primer in separate tubes*
- **Custom**
 - Full-service for samples with unknown concentration
 - Sample types include:
 - Plasmids*
 - PCR products (purified and unpurified)*
 - Bacterial clones (colonies and glycerol stock)*
 - Phage with circular genome (supernatant and plaque)*
 - BAC DNA*
 - Template-dependent services include:
 - Measure template concentration and optimize for sequencing
 - Amplify template from clones:
 - ◆ Bacterial colonies
 - ◆ Glycerol stock
 - ◆ Phage plaque
 - ◆ Phage supernatant
 - Clean-up crude PCR products with one band using ExoSAP-IT
 - ◆ Select “unpurified PCR product” as the DNA type and “PCR clean-up” as the Special Request when placing DNA sequencing order for this service option

**Please prepare all DNA sequencing samples according to Sample Submission Guidelines*

Note: *GENEWIZ Universal Primers available for all DNA sequencing services, free of charge*

DNA Sequencing Results & Support

- **Fast & Convenient:** Data reported the morning following sample pick-up; results are provided via email in an easily accessible web link
 - Monday – Friday: Results reported by 10:00 a.m.
 - Saturday: Results reported by 12:00 p.m.
- **High Quality:** Read length 750-1000bp, >700bp Phred20; Quality Score and Contiguous Read Length (CRL) provided with each read
- **Best-in-Class Proprietary Protocols:** Difficult template sequencing, including GC-rich DNA and RNAi
- **Online Ordering & Data Retrieval:** Accessible 24/7
- **Technical Support:** Award-winning, easily accessible technical support available to answer questions and help with any troubleshooting needs, Monday – Friday, 8:00 a.m. – 8:00 p.m. (ET)



GENEWIZ, Inc. Contact Information

Amanda Skeen, Sales Executive

amanda.skeen@geneviz.com

Mobile: 310-259-9775

Technical Support: 1-877-GENEWIZ (436-3949)



GENEWIZ, Inc. DNA Sequencing Service Details for USC Norris Comprehensive Cancer Center DNA Core

GENEWIZ Free Universal Primers		
T7	20 mer	5'-d(TAA TAC GAC TCA CTA TAG GG)-3'
T3	20 mer	5'-d(ATT AAC CCT CAC TAA AGG GA)-3'
SP6	19 mer	5'-d(GAT TTA GGT GAC ACT ATA G)-3'
BGHR	18 mer	5'-d(TAG AAG GCA CAG TCG AGG)-3'
M13F(-21)	18 mer	5'-d(TGT AAA ACG ACG GCC AGT)-3'
M13F(-47)	24 mer	5'-d(CGC CAG GGT TTT CCC AGT CAC GAC)-3'
M13R	17 mer	5'-d(CAG GAA ACA GCT ATG AC)-3'
T7 Term	19 mer	5'-d(GCT AGT TAT TGC TCA GCG G)-3'
CMV-Forward	21 mer	5'-d(CGC AAA TGG GCG GTA GGC GTG)-3'
3AOX1	21 mer	5'-d(GCA AAT GGC ATT CTG ACA TCC)-3'
5AOX1	21 mer	5'-d(GAC TGG TTC CAA TTG ACA AGC)-3'
5GEX	23 mer	5'-d(GGG CTG GCA AGC CAC GTT TGG TG)-3'
3GEX	23 mer	5'-d(CCG GGA GCT GCA TGT GTC AGA GG)-3'
pFastBacF	20 mer	5'-d(GGA TTA TTC ATA CCG TCC CA)-3'
pFastBacR	20 mer	5'-d(CAA ATG TGG TAT GGC TGA TT)-3'
pBAD Forward	20 mer	5'-d(ATG CCA TAG CAT TTT TAT CC)-3'
pBAD Reverse	18 mer	5'-d(GAT TTA ATC TGT ATC AGG)-3'
M13F	18 mer	5'-d(GGT TTT CCC AGT CAC GAC)-3'
T7 EEV	22 mer	5'-d(ATG TCG TAA TAA CCC CGC CCC G)-3'
V5	21 mer	5'-d(ACC GAG GAG AGG GTT AGG GAT)-3'
Myc	24 mer	5'-d(GCA TCA ATG CAG AAG CTG ATC TCA)-3'
Neo-F	20 mer	5'-d(CGT TGG C TA CCC GTG ATA TT)-3'
Neo-R	18 mer	5'-d(TGG ATA CTT TCT CGG CAG)-3'
EGFP-C	22 mer	5'-d(CAT GGT CCT GCT GGA GTT CGT G)-3'
EGFP-N	21 mer	5'-d(CGT CGC CGT CCA GCT CGA CCA)-3'
SV40pA-R	20 mer	5'-d(GAA ATT TGT GAT GCT ATT GC)-3'
SV40-Promoter	20 mer	5'-d(TAT TTA TGC AGA GGC CGA GG)-3'



GENEWIZ, Inc. DNA Sequencing Service Details for USC Norris Comprehensive Cancer Center DNA Core

DNA Sequencing Sample Submission Guidelines

Three Easy Steps for Sample Submission:

1. Orders with <48 samples: Use 8-strip PCR tubes to streamline preparation and processing; please label tubes with your initials and the sample number.
Orders with >48 samples: Receive a discount by using a 96-well PCR plate and arranging samples vertically (A1 – H1).
2. Dilute sequencing primer to 5 μ M (pmol/ μ l) using water; each reaction requires 5 μ l. GENEWIZ Universal Primers are also available, at no additional charge.
3. Use specifications in the following tables to prepare samples based on your order type.

Sample Preparation (Pre-Mixed; Pre-Defined; Custom)

Pre-Mixed: In the same tube, mix template (10 μ l) and primer (5 μ l) according to the following specifications:

DNA Type	DNA Length	Template Concentration in 10 μ l	Template Total Mass	Primer Total Picomoles	Pre-Mixed Volume* (Template + Primer)
Plasmid	<6 kb	~50ng/ μ l	~500ng	25pmol	15 μ l
	6-10 kb	~80ng/ μ l	~800ng		
	>10 kb	~100ng/ μ l	~1000ng		
Purified PCR Product	<500 bp	~1ng/ μ l	~10ng	25pmol	15 μ l
	500-1000 bp	~2ng/ μ l	~20ng		
	1000-2000 bp	~4ng/ μ l	~40ng		
	2000-4000 bp	~6ng/ μ l	~60ng		
	>4000 bp	Treat as plasmid	Treat as plasmid		

**If using a GENEWIZ Universal Primer, please submit the required amount of template in 10 μ l*



GENEWIZ, Inc. Contact Information

Amanda Skeen, Sales Executive
amanda.skeen@geneviz.com
Mobile: 310-259-9775

Technical Support: 1-877-GENEWIZ (436-3949)



GENEWIZ, Inc. DNA Sequencing Service Details for USC Norris Comprehensive Cancer Center DNA Core

Pre-Defined: In separate tubes, provide template (10µl) and primer (5µl) according to the following specifications:

DNA Type	DNA Length	Template Concentration in 10µl	Template Total Mass	Template Volume/Reaction	Primer Concentration µM (pmol/10µl)	Primer Volume/Reaction
Plasmid	<6 kb	~50ng/µl	~500ng	10µl	5µl	5µl
	6-10 kb	~80ng/µl	~800ng			
	>10 kb	~100ng/µl	~1000ng			
Purified PCR Product	<500 bp	~1ng/µl	~10ng	10µl	5µl	5µl
	500-1000 bp	~2ng/µl	~20ng			
	1000-2000 bp	~4ng/µl	~40ng			
	2000-4000 bp	~6ng/µl	~60ng			
	>4000 bp	Treat as plasmid	Treat as plasmid			

**See [Technical Notes](#) for tips on how to purify PCR products*

Custom: GENEWIZ will determine template concentration, optimize for sequencing, and mix with primer; if available, please provide template concentration according to the following specifications:

DNA Type	DNA Length	Template Concentration	Template Total Mass (recommended)	Template Volume/Reaction	Primer Concentration µM (pmol/10µl)	Primer Volume/Reaction
Plasmid	Any Size	Unknown	At least 500ng	10µl	5µl	5µl
Purified PCR Product	Any Size	Unknown	At least 40ng	10µl	5µl	5µl

**Please submit the same amount of DNA required for purified PCR products when submitting unpurified PCR products*

For more Sample Submission Guidelines, including details for Bacteria & Phage, Tubes & Plates, and Technical Notes, please [click here](#).



GENEWIZ, Inc. Contact Information

Amanda Skeen, Sales Executive
amanda.skeen@geneviz.com
Mobile: 310-259-9775

Technical Support: 1-877-GENEWIZ (436-3949)



GENEWIZ, Inc. DNA Sequencing Service Details for USC Norris Comprehensive Cancer Center DNA Core

GENEWIZ Gene Synthesis

Gene synthesis is an efficient and cost-effective alternative to molecular cloning for custom gene production. GENEWIZ can synthesize codon-optimized cDNA, gene variants, artificially designed DNA, or any other sequence for your research. Provide a nucleotide or amino acid, and GENEWIZ will ship your gene cloned into the plasmid of your choice.

GENEWIZ gene synthesis services include:

- Full Service
- Fast & Reliable Turnaround
- Expert Project Management
- Personalized Consultation & Support
- Intellectual Property Security

Standard deliverables include:

- 2-5µg of lyophilized plasmid containing your desired synthetic construct
- Certificate of Analysis (COA), including restriction digest
- Sequence trace data with alignment
- Sequence of synthetic gene alone and in vector

Fast turnaround time:

Synthetic Gene Length	Standard Delivery Time*
<1.5 kb	8-10 Business Days
1.5-3 kb	14-17 Business Days
3-5 kb	20-25 Business Days
5-6 kb	25-30 Business Days
>6 kb	Custom Quote

For more information about GENEWIZ Gene Synthesis, please [click here](#).



GENEWIZ, Inc. Contact Information

Amanda Skeen, Sales Executive
amanda.skeen@genewiz.com
Mobile: 310-259-9775

Technical Support: 1-877-GENEWIZ (436-3949)

