



Barcode sequencing



Barcode sequencing service

- **Automated and standardised** ABI 3730xl sequencing run with a read length up to 1,000 nt (PHRED20 quality)
- **Overnight** turnaround if samples are delivered before 10 a.m.
- **Free** sample bags for secure sample shipment (available via the online ordering system)
- **Free** LGC Genomics plasmid DNA standard (simply load and compare 1 µl (80 ng) of plasmid DNA standard to your plasmid preparation)
- **Free replacement** of valid barcode labels in case of loss
- **Free** universal primers
- Expert advice and customer support on
Tel: +49 (0)30 5304 2233 from 8 am to 6 pm Monday to Friday
- Barcode labels valid for 18 months

Price guide*

Barcode sequencing (non-prepaid) (Batches of 50, 100, 200 barcode labels are only available online) Larger batches upon request	per run	11.00 €
Barcode sequencing (prepaid) (Ordering in batches of 10) Batch of 20 prepaid barcode labels Batch of 100 prepaid barcode labels Batch of 500 prepaid barcode labels Prices for larger batches upon request	per run per run per run	10.00 € 9.00 € 8.00 €
Barcode sequencing (test) (10 prepaid barcode labels per new customer, please enquire on <i>Tel: +49 (0)30 5304 2233</i>)	per run	5.00 €

* All prices are valid from 1 August 2010 and are subject to change without notice. Prices exclude VAT and shipping costs. All orders are subject to our general business terms and conditions, which are available upon request.

For further information please contact us on
Tel: +49 (0)30 5304 2233 or seqservice@lgcgenomics.com

Repeat of barcode sequencing runs

LGC Genomics offers the option to repeat a failed run at a reasonable price. Please contact your Area Sales Manager or call us on

Tel: +49 (0)30 5304 2233 for more details.

Online ordering system

Please note that this service is **only available online** and it is absolutely necessary to meet the following requirements:

- Go to the LGC Genomics online ordering system at <https://shop.lgcgenomics.com> and register as a new user
- Order the barcode labels online
- Label one 1.5 ml Eppendorf tube per sequencing reaction using one barcode
- Place your sequencing order online
- Prepare your samples according to the following requirements
- Ship the tubes in a padded envelope (sample bags are available online free of charge)

Template DNA requirements

The quality of the template is the main factor influencing read length:

- Template DNA must be **free of** EtOH, EDTA, RNA, salts, genomic DNA and proteins
- Please use distilled water for elution
- Plasmid DNA should mainly be present in covalently closed circular form. (We recommend silica membrane-based spin column kits.)
- PCR products need to appear as a single band in an agarose gel and have to be purified from reaction buffer, primers and nucleotides

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Your sample preparation

Please send us **10 µl** of your template DNA solution. The required concentrations are listed below.

If sequencing with a custom primer is required, please add **4 µl** of a **5 pmol/µl** primer solution to the template tube (10 µl template + 4 µl primer = total amount of 14 µl). Universal primers are added by LGC Genomics.

Template DNA	Volume	Concentration
Plasmids*	10 µl	100 ng/µl
PCR products*		
200 - 500 bp	10 µl	10 ng/µl
500 - 1,000 bp	10 µl	20 ng/µl
1,000 - 2,000 bp	10 µl	40 ng/µl

* The barcode sequencing service is optimised for plasmids up to 10 kb and PCR fragments up to about 2 kb with normal nucleotide composition.

We recommend that you use one of our standard DNA sequencing services if you are sequencing large constructs, high GC content DNA, or DNA with difficult DNA motifs (such as secondary structures).

Sequencing of PCR fragments smaller than 150 bp is not recommended due to limitations of the current technology.

For an accurate determination of the DNA concentration please use the LGC Genomics plasmid DNA standard which is supplied free of charge.

Sequencing results

The sequencing data are available in the download area of the LGC Genomics online order system, protected by password. We provide the chromatograms (.abi and .scf files) and the text sequence (.txt file) extracted by the LGC Genomics software.

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Custom primer requirements

- Length of 18 - 24 bases
- **The annealing temperature** (4 x number of G, C + 2 x number of A, T) **should be at least 52°C**
- GC-content of at least 40 - 50 %
- 3'-end should be G or C
- No self hybridisation (primer dimer, loops) or binding to several sites on the template
- One HPLC product
- Deprotected
- **Without modifications** (fluorophore or others)
- Free of salts and other contaminants

Free universal primers are:

3AOX	GCAAATGGCATTCTGACATCC
5AOX	GACTGGTTCCAATTGACAAGC
pcDNA3.1-R	TAGAAGGCACAGTCGAGGCT
BluescriptR	GGAAACAGCTATGACCATG
CMV-F	CGCAAATGGGCGGTAGGCGTG
CaMV	CCACGTCTTCAAAGCAAGTG
Donr-F	TCGCGTTAACGCTAGCATG
EGFP-C1-F	GAAGCGGATCACATGGTC
EGFP-C1-R	AACCATTATAAGCTGCAATAAAC
EGFP-N1-F	GAGGTCTATATAAGCAGAGC
EGFP-N1-R	ACTTGTGGCCGTTTACGTC
M13-F	CCAGGGTTTTCCCAGTCACG
M13-R	CGGATAACAATTTACACAGG
SeqL-E	GTTGAATATGGCTCATAACAC
Sp6-20	CTATTTAGGTGACACTATAG
T3	AATTAACCCTCACTAAAGGG
T7prom	TAATACGACTCACTATAGGG
T7term	GCTAGTTATTGCTCAGCGG
pAD-Gal4-AD	GTTTGGAATCACTACAGGGATG
pGAD10-F	TACCACTACAATGGATGATG
pGEX3	CCGGGAGCTGCATGTGTCAGAGG
pGEX5	GGGCTGGCAAGCCACGTTTGGTG
pQE-F	CGGATAACAATTTACACAG
pQE-R	GTTCTGAGGTCATTACTGG

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LGC Genomics offers
Next generation sequencing

Please check our new webpage
www.lgcgenomics.com
for further information



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