

Cell Line Authentication Program Information & Pricing

LGC Standards is pleased to offer short tandem repeat analysis, or STR profiling as part of our cell line authentication program designed to support your research. LGC Standards genotyping laboratories are equipped with state of the art equipment. We offer genotyping using PowerPlex® 16 Hot Start technology. Here we compare The STR service to the reference loci routinely used by ATCC®.

ATCC® Reference Loci	PowerPlex® 16HS 16 Loci Service
Amelogenin	Amelogenin
CSF1PO	CSF1PO
D13S317	D13S317
D16S539	D16S539
	D18S51
	D21S11
	D3S1358
D5S818	D5S818
D7S820	D7S820
D8S1179	D8S1179
	FGA
	Penta D
	Penta E
TH01	TH01
TPOX	TPOX
vWA	vWA

After considering the expected industry requirements for cell line authentication, LGC Standards recommends the 16 Loci service for routine cell line authentication.

Please be aware that current STR profiling systems are **only suitable** for cell lines of human origin.

The short tandem repeat (STR) profile generated by LGC Standards is indicative only of the sample sent to LGC Standards at the time it was sent. Any manipulation of a cell line may induce changes. LGC Standards recommends regular testing of all immortalised human cell lines. Comparative notes reported are made relative to an available reference STR profile. It is the responsibility of the end user to decide on the fitness of their particular cell line for their purpose.

Cell Authentication; STR profiling and analysis protocol

Transporting sample(s)

Samples can be transported using Transport buffer, a proprietary technology from LGC, which acts as a lysing agent to the cell whilst stabilising the gDNA.

Samples sent using our Transport buffer can be shipped at ambient temperature to our Cologne facility.

Dry ice: If you prefer to ship using dry ice contact your local office for an alternate delivery address.

Extraction

1. DNA will be extracted from cells using a sbeadex[®] nucleic acid extraction kit.
If you plan to extract gDNA, information can be found on the next page
2. Amplification using either 16 Loci or Identifier protocols
3. Samples are separated on a 3100 or 3130xl (31XX) AB platform
4. Data is analysed using Genemapper ID

Reporting

The results of STR analysis will be reported both as a hard copy and electronically, as a .PDF file accompanied by raw data files provided for your reference

Turnaround

Reports will be issued within 4-5 weeks of receipt of samples, unless otherwise agreed, note that faster turnaround times will incur an express service fee.

Post PCR samples will be held for 3 months post analyses by LGC Standards, after which they will be destroyed.

Pricing Schedule (VAT will be charged at the prevailing rate on date results are supplied)

An ISO 17025 certified service can be offered at an additional £95/€109 per sample surcharge.
(Code: CLA-ISO17025)

Sample type	Service Type	Sample Number	Cost per sample	Express service cost per sample
Cell pellet	16 loci	1	£155 or €165	£255 or €295
2x10 ⁵ cells/vial		2-12	£139 or €149	£214 or €248
		13-48	£129 or €139	£179 or €204
		49+	£125 or €135	£175 or €200
	Transport buffer	4 samples/vial	£5 or €7 per vial	
	Clean up and rerun a failed gDNA sample	Any	25% discount on Cell pellet service price	

Note: Failed samples will only be reanalysed with customer consent

Supplying cell pellets for profiling

Please send your cultured cells in a 1.5ml or 2ml screw top vial suspended in Transport buffer. This is a simple process which involves adding 400µl of transport buffer to your cell pellet. Please refer to the **protocol on Transport buffer information sheet** for specific information to prepare your samples.

Supplying gDNA for profiling

LGC Standards have optimised the extraction of gDNA suitable for profiling using beadex[®] blood kits following a protocol specific for cell lines. If you wish to extract the gDNA from your cell sample please be aware that we require your DNA to meet the following quality and quantity standards

gDNA Quality

Recommended parameters for assessment are:

ratio of optical density at 260nm to 280 nm (A₂₆₀/A₂₈₀) between 1.8 and 1.9 and optical density at 260nm to 230nm (A₂₆₀/A₂₃₀) > than 1.5.

gDNA Quantity - Minimum of 10ng/ul in a total of 10µl

Supplied DNA solution must be free of any PCR inhibitors (complexing agents like EDTA, proteins, polysaccharides, and DMSO).

Reference profile for analysis of your sample

LGC Standards reads all cell line STR profiles blind. However an important part of the authentication process is to understand what you believe the cell line to be. Also as there are many cell lines with closely related sub-clones, any drift in a genotype can make it difficult to determine which profile is the most accurate for your sample and hence make the process of determining the fitness for purpose of that cell line more complex.

In order to provide the most accurate report it is important that you provide a reference to a known STR (where available). Through our relationship with ATCC we can access the ATCC STR profile database. You simply need to provide the ATCC catalogue number which can be easily obtained from the website www.lgcstandards-atcc.org. If your cell line is from another source, please indicate and we will investigate how we can work together to obtain the reference you require.

When we review your order we will request the most appropriate reference for your sample. If you are unable to provide either an ATCC reference or other reference STR profile, LGC Standards can still profile your sample. Although without a reference we cannot comment on the profile generated, however we will search our databases to eliminate contamination or misidentification by common laboratory cell lines.

Cell line samples are processed at our Cologne facility. Please ship your samples to

LGC Standards
Cell Line Authentication program
Stolberger Strasse 370
50933 Cologne
Germany

Cell Line Authentication Program Order Form

(1/2)

Thank you for your cell authentication (STR profile) program enquiry. Please complete and return this form to your local LGC Standards office by fax or email. Your order must include a valid purchase order number.

Please note that **samples will not be accepted without a unique LGC Standards Sample Tracking Number**. This number will be sent to you once your local LGC Standards office has processed your order.

Customer Purchase Order Number		LGC Standards Tracking Number	
Customer Name			
Organisation			
Contact Phone Number			
Contact Email Address			
VAT exemption number, please provide a copy of the certificate			
Delivery Address			
Invoicing Contact and Address			

Submission of this form with a valid purchase order number to LGC Standards indicates acceptance of service terms and conditions.

Customer Signature	
Date	

Orders are subject LGC standard terms & conditions. The report generated by LGC Standards represents the profile of the sample delivered to LGC Standards and cannot be assumed that the cell line will retain that STR profile after subsequent passaging or manipulation. To ensure proper credit of your payment, please include a purchase order number for reference. Credit terms are 28 days net.

LGC retains a copy of all cell line short tandem repeat profiles generated in the provision of the cell line authentication service. These profiles will be used anonymously for both exclusion and subsequent profiling references. If you have questions please contact cell@lgcstandards.com.

By returning this you agree to your personal data being: processed by LGC Limited for the provision of our products and services, marketing, the analysis of data, and for administration purposes; shared with other companies in the LGC Group for the same purposes; and transferred outside of the European Economic Area. In the future we may mail, telephone, email or fax you with information about our products and services. **If you do not wish to receive further marketing communications from us, please tick the box above** or contact us at Marketing department, LGC Limited, Queens Road, Teddington, Middlesex TW11 0LY.

Please include a copy of this page with your samples.

(2/2)

Ensure your tracking number is completed.

Customer Name:

LGC Standards Tracking Number:

Sample information

Cell Sample: 2×10^6 cells/vial **gDNA:** Minimum 10ng/ul in 10 μ l

Please select one drop down per type of STR profile or sample as required.

Please be aware that we cannot accept any cell pellets which are infected with a replicative virus. Please contact the LGC Standards office to discuss these types of samples.

Indicate Sample type	Service Type	Quantity	Cost	Sub-total
Select Cell or gDNA	Select STR			
Select Cell or gDNA	Select STR			
Transport buffer (4 samples per vial)				
			Total	

If you have greater than 15 samples please use these headings to create an excel spreadsheet.

	Cell line Name	ATCC® No. (Reference for your sample)	Service Type (16 Loci)	Sample Type (Cell or gDNA)	No. of Cells or Conc. of gDNA
1			Select STR	Select	
2			Select STR	Select	
3			Select STR	Select	
4			Select STR	Select	
5			Select STR	Select	
6			Select STR	Select	
7			Select STR	Select	
8			Select STR	Select	
9			Select STR	Select	
10			Select STR	Select	
11			Select STR	Select	
12			Select STR	Select	
13			Select STR	Select	
14			Select STR	Select	
15			Select STR	Select	

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