CeGaT

Research &
Pharma Solutions

Sample Requirements & Shipping Guide

Our Recommendations for Your Samples

To get the best out of your samples, we ask you to consider the following sample requirements.

Please check the nucleic acid concentration with a fluorometric-based method (e.g., Qubit). A photometric determination using NanoDrop is **not** sufficient.

DNA Sequencing

	Product	Sample requirements		
		Quantity	Concentration	Volume
Sequencing Services	Genome Sequencing	≥ 500 ng	≥ 20 ng/µl	≥ 25 µl
	Genome Sequencing (PCR free)	≥ 1500 ng	≥ 20 ng/µl	≥ 75 µl
	HiFi Genome Sequencing	≥ 3000 ng	≥ 30 ng/µl	≥ 25 µl
	Exome Sequencing	≥ 250 ng	≥ 10 ng/µl	≥ 25 µl
	Panel Sequencing	≥ 250 ng	≥ 10 ng/µl	≥ 25 µl
	HiFi Panel Sequencing	≥ 1000 ng	≥ 40 ng/µl	≥ 25 µl
Epigenomics	Methylation Sequencing	≥ 500 ng	≥ 20 ng/µl	≥ 25 µl
Microbiome Analysis	Shotgun Metagenomics	≥ 250 ng	≥ 10 ng/µl	≥ 25 µl
	Full Length 16S Sequencing	≥ 250 ng	≥ 10 ng/µl	≥ 25 µl
Translational Oncology	Comprehensive Tumor Profiling	≥ 250 ng	≥ 10 ng/µl	≥ 25 µl
	Liquid Biopsy	≥ 250 ng	≥ 10 ng/µl	≥ 25 µl
	TSO500	≥ 500 ng	≥ 20 ng/µl	≥ 25 µl
Immunology	HLA Typing	≥ 500 ng	≥ 20 ng/µl	≥ 25 µl

We recommend exclusively using DNA samples that were RNase treated. Please deliver DNA in molecular biology grade water, 10 mM Tris-HCl pH 8 or Elution Buffer, free of EDTA.

We ask you to send samples in 2 ml screw cap tubes from Sarstedt or 1.5 ml Eppendorf tubes. For a sample size ≥ 16 samples, please provide the samples in Eppendorf twin.tec PCR Plates 96, skirted (0030128648).

RNA Sequencing

	Product	Sample requirements			
		Quantity	**Concentration**	**Volume**	**Quality**
Sequencing Services	Coding Transcriptome Sequencing	≥ 500 ng	≥ 20 ng/µl	≥ 25 µl	RIN ≥ 8
	Whole Transcriptome Sequencing	≥ 500 ng	≥ 20 ng/µl	≥ 25 µl	RIN ≥ 3
	Small RNA Sequencing	≥ 1000 ng total RNA	≥ 20 ng/µl	≥ 50 µl	RIN ≥ 8
	Single-Cell RNA Sequencing	1 million cells			
Translational Oncology	CTP FUS Panel	≥ 50 ng	≥ 2.5 ng/µl	≥ 20 µl	
Immunology	T-Cell Receptor Sequencing RNA	≥ 250 ng	≥ 10 ng/µl	≥ 25 µl	
	Single-Cell Immune Profiling	1 million cells			

We recommend exclusively using RNA samples that were DNase treated. Please deliver them in molecular biology grade water, 10 mM Tris-HCl pH 8, or Elution Buffer, free of EDTA.

We ask you to send samples in 2 ml screw cap tubes from Sarstedt or 1.5 ml Eppendorf tubes. For a sample size ≥ 24 samples, please provide the samples in Eppendorf twin.tec PCR Plates 96, skirted (0030128648).

For Single-Cell RNA Sequencing and Single-Cell Immune Profiling, we require frozen single cell suspensions. Each sample should contain 1 million cells in 1 ml cryopreservation medium with cell viability > 90%. No large cell aggregates should be present in the cell suspension prior to cryopreservation. Please provide the samples in the Eppendorf twin.tec PCR Plates 96, skirted (0030128648).

Ready to Load Sequencing

Platform	Sample requirements	
NovaSeq™ X Plus	120 µl of a 10 nM library pool	
NovaSeq™ 6000	120 µl of a 10 nM library pool	
MiSeq	20 µl of a 10 nM library pool	
PacBio	12 µl of a SMRTbell® library	
	The DNA concentration depends on the library insert size:	
	Library insert size	**Concentration**
	≥ 10 kb	≥ 20 ng/µl
	3000 bp – 9999 bp	≥ 6 ng/µl
	1500 bp – 2999 bp	≥ 3 ng/µl
	500 bp – 1499 bp	≥ 1 ng/µl

Ready to Load Sequencing libraries for the Illumina Platforms need to be diluted in 10 mM Tris-HCl, pH 8.5.

PacBio libraries need to be delivered in PacBio elution buffer.

Samples for DNA and RNA Isolation

Sample type	Sample requirements
PAXgene blood RNA tubes	3 – 5 ml
EDTA/PAX blood tubes	1 – 2 ml
Dried blood spot card	5 spots (100 µl)
Tissue	10 – 30 mg (2 mm x 2 mm x 2 mm)
FFPE-tissue (tumor content > 30%)	10 sections (10 – 20 µm each)
FFPE-tissue (tumor content > 30%) for macrodissection	10 sections (20 – 30 µm each), 1 section 5 µm
Cell pellet or cells in RLT buffer	1 million cells
Saliva	ORAgene DNA tube (DNA Genotek)
Buccal swab	ORAcollect DNA tube (DNA Genotek)
Fecal samples	CeGaT's sampling kit

For isolation of cfDNA, we require 8 ml - 12 ml plasma / 2 - 3 Streck tubes.

Stool samples must either be placed fresh in DNA/RNA shield according to our sampling kit (then no freezing necessary) or frozen directly. Even shorter storage periods under different conditions can significantly falsify the results.

How to Bring Your Samples on the Way to Us?

Shipping requirements:

- DNA samples should be shipped chilled at 4°C or frozen.
- RNA samples should be shipped frozen on dry ice.
- Sequencing libraries should be shipped frozen on dry ice.

When your samples are ready for shipping:

- Please ensure that the samples are labeled clearly and according to the respective sample sheet.
- Please send a sample announcement with the attached sample sheet to rps@cegat.de.
- Print the sample sheet and offer and add it to the sample parcel.

Send your samples to:

CeGaT GmbH
Project Management
Paul-Ehrlich-Straße 23
72076 Tübingen
Germany

If you have any questions about the sample requirements, please contact us at rps@cegat.com.

About Us

CeGaT was founded in 2009 in Tübingen, Germany. Our scientists are specialized in next-generation sequencing (NGS) for genetic diagnostics, and we also provide a variety of sequencing services for research purposes and pharma solutions. Our sequencing service portfolio is complemented by analyses suited for microbiome, immunology, and translational oncology studies.

Our dedicated project management team of scientists and bio-informaticians works closely with you to develop the best strategy to realize your project. Depending on its scope, we select the most suitable library preparation and conditions on our sequencing platforms.

We would be pleased to provide you with our excellent service. Contact us today to start planning your next project.

DAkkS
Deutsche Akkreditierungsstelle
D-PL-13206-01-00

Accredited by DAkkS according to DIN EN ISO/IEC 17025:2018

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

CLIA CERTIFIED ID: 99D2130225

CeGaT GmbH
Research & Pharma Solutions
Paul-Ehrlich-Str. 23
72076 Tübingen
Germany

Phone: +49 7071 56544-333
Fax: +49 7071 56544-56
Email: rps@cegat.com
Web: www.cegat.com/rps

2024/04