

Lexogen 10X Single-cell Sample Submission Guide

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General Sample Submission & Shipping Guidelines

- Include all required details for each sample in the Sample Submission Form (SSF).
- Complete the Sample Submission Checklist in the SSF prior to preparing your shipment.
- Use clear short unique sample names, preferably running numbers.
- Clearly Label the lid and side of tubes with the sample name.
- Check our Services Tips for Sample Preparation, Packaging & Shipping for instructions on how to package and label shipments.

	Frozen / Cryopreserved Samples	Fresh Samples
Tube Containers	1-2 mL cryovials	1-2 mL safelock eppendorf tubes
Tube Sealing & Protection	Place tubes inside a cardboard tube storage box.	None
Packaging	dry-ice compatible thick-walled polystyrene box, with tight fitting lid. Sufficient volume for dry ice amount. (sealed with packing tape). optional outer cardboard box. "THIS SIDE UP" labeling	polystyrene ice-box with lid
Shipping Temperature	dry ice ! Ensure dry ice surrounds samples on all sides	ice (4 °C)*

***Fresh samples must be delivered in-person** to Lexogen's Service Laboratories (Vienna, Austria), on ice, before 14:00 on the agreed date of delivery. Delivery time must be confirmed 24 hrs in advance/by 9am on the agreed date of delivery.

Minimum Dry Ice Amounts for Shipping

within the EU	10 kg
cross-EU border (i.e. UK/USA/Asia)	20 kg

Recommended Courier & Logistics Providers

- FedEx (International Priority)
- UPS (Express Saver),
- World Courier,
- Biocair

Shipping Timelines

Ship **cryopreserved samples** to arrive at Lexogen's Vienna Service Laboratories during normal operating hours: **Monday - Thursday 9am - 5pm; Friday 9am - 3pm.**

- EU: Ship on Monday or Tuesday
 - USA: Ship on Thursday or Friday
 - UK: Ship on Friday or Monday
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Cryopreserved Samples

Single-cell Suspensions

These guidelines apply for cryopreserved Single-cell suspensions prepared from:

- **Cultured cells** - follow general 10X sample preparation tips according to the [Cell Preparation for Single-cell Protocols](#) Guidelines
- **Dissociated tissue samples** - Perform optimized tissue dissociation and cell enrichment (FACS/MACS, if applicable) to obtain Single-cell suspensions.
- **Blood/PBMCs** - Follow 10X recommended [protocols for isolation of blood cell types from whole blood](#).

For further sample preparation information contact services@lexogen.com to receive the Lexogen 10X Sample Preparation Guide.

Requirements:

- Measure the cell counts and viability prior to cryopreservation.
- Use 1-2 mL cryovials - close tightly & seal with parafilm.
- Cryopreservation medium should be adapted to the cell type, and specified in the Sample Submission Form.
- Provide two (duplicate) cryovials of cells for each sample, according to the requirements below:

	Recommended	Minimum*
Cell Number	$\geq 1 \times 10^6$ cells /sample	5×10^5 cells / sample
Concentration	$\geq 1 \times 10^6$ cells / ml	5×10^5 cells / ml
Viability [prior to cryopreservation]	>90%	70%**

*If your sample amounts are below minimum requirements, please contact us at services@lexogen.com.

**Reduced viability increases ambient RNA in the sample which can negatively impact the results.

Frozen Tissues

These guidelines apply to tissues, frozen without cryoprotectants.

- Use 1-2 mL cryovials - close tightly & seal with parafilm.
- Keep fresh tissue cold during dissections.
- Where possible, cut tissue into smaller pieces ~ 5 - 50 mg and snap freeze in separate cryovials.

		Recommended	Minimum*
Tested Tissue Types	Total Tissue Mass	50 mg	10 mg
	Mass per cryovial	5 – 50 mg	5 mg
	No. Tissue pieces/ cryovials	2	1
Pilot Studies & Low content tissues	Total Tissue Mass	80 - 100 mg	50 mg
	Mass per cryovial	5 – 50 mg	5 mg
	No. Tissue pieces/ cryovials	2 - 4	2

*If your sample amounts are below minimum requirements, please contact us at services@lexogen.com.

Fresh Samples

Single-cell Suspensions

- Contact Lexogen Services Laboratories to arrange the delivery date and time for the cells at least 1 week in advance.
- Cell delivery time must be no later than 14:00, and must be confirmed 24 hrs in advance / by 9am on date of delivery.
- Use 1-2 mL safelock eppendorf tubes.
- Measure the cell counts and viability after isolation and prior to transportation.
- Cells should be resuspended in a 10X compatible culture medium with 0.04% BSA (or 1% for mouse blood-derived cells) or up to 10% FBS. or preserved in short term Cell Storage Solution (e.g. [from Miltenyi](#)). ATTENTION! Avoid EDTA (>0.1 mM), Magnesium (> 3mM) and surfactants i.e., Tween-20 - these components will interfere with reverse transcription and GEM generation. [See 10X Cell Prep Guide for Details.](#)
- Transport cells on ice, in person, directly to Lexogen Services Laboratories, within 2 hours of isolation.
- Provide at least 1 tube of cells for each sample, according to the requirements below:

	Recommended	Minimum*
Cell Number	$\geq 1 \times 10^6$ cells /sample	5×10^5 cells / sample
Concentration	$\geq 1 \times 10^6$ cells / ml	5×10^5 cells / ml
Viability [prior to transport]	>90%	70%**

*If your sample amounts are below minimum requirements, please contact us at services@lexogen.com.

**Cell viability <70% is not recommended as this increases the ambient RNA content, which may negatively impact the results.