

Instructions

Karyotype Service

Live cells for analysis

Cat K02, K06, and K12



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A guide to preparing and shipping live cells for karyotype analysis

Preparing cells

A. Cell requirements

- For each sample, one T25 flask (or equivalent) is required.
- Cells can be prepared with or without feeder layer.
- For colony culture, colonies should be large enough to be visible by eye.
- At fixing, culture should be in log phase, undergoing active cell division. Non-log scale cultures will not yield sufficient cells for analysis.

Please note, that for cells classified as Biosafety Level 2 (BSL2) an extra questionnaire is provided, so a Risk Assessment document can be prepared before the live cells are received in our laboratories.

All live cells will be incubated in a standard incubator at the following conditions: 37°C, 5% CO₂ and atmospheric O₂. If the maintenance of the cells requires different parameters, please provide already fixed cells for analysis.

Please do not send any samples without contacting us and booking a specific slot.

Please note that live cells will not be processed unless the following sample requirements are met:

- Cells are shipped at room temperature in a T25 flask with a solid cap.
- Shipment flasks are full to the brim with cell culture media. This will be approximately 60 ml for a T25 flask, but volumes will vary depending on brand.
- Enough additional cell culture media is supplied in order to allow for sufficient media changes (20 ml per flask).
- Tissue culture flask filter caps are supplied in order to replace solid caps prior to incubation.
 - Please send filter caps still attached to flasks, in order to maintain sterility.
 - Adjustable solid/vented caps are also accepted.
- Cultures growing as a monolayer should arrive at Cell Guidance Systems' laboratories at no more than 60% confluency.

- Samples should be in transit for no more than 24 hours, and reach us on a Tuesday or Wednesday at the latest.

B. Handling of cells by Cell Guidance Systems prior to fixing

1. At receipt, most of the medium will be removed except for ~6 ml.
2. The plug seal screw caps will be replaced by ventilated caps (from the additional T25 flask provided).
3. The cells will be incubated at 37°C in the presence of 5% CO₂ for ~4 h.
4. Half of the medium of the cells (~3 ml) will be replaced and the cells will be incubated at 37°C in the presence of 5% CO₂ overnight.

The cells are then fixed for karyotype analysis, once sufficient confluency is reached.

Sample details

A. Requisition form

Please complete a requisition form for each batch of samples being sent to Cell Guidance Systems in advance. This can be found on our [website](#).

Please ensure that sample vials are labelled correctly, with information matching the requisition form.

We do NOT accept live BSL2 samples.

Shipping instructions

A. How to send the flasks with live cells

1. Seal the flasks with parafilm.
2. Enclose the flasks in a polystyrene box to insulate from temperature extremes.
3. Ensure the flasks will not move within the box by providing cushioning with bubble wrap.
4. Remember to enclose purchase order.
5. Ship at ambient temperature (do not include ice packs).

**We highly recommend that the cells are only in transit for one day/night.
In our experience, cells that have been shipped over two days do not sufficiently recover.**

B. Delivery address

Attention: Michael Jones
Cell Guidance Systems
Unit E, South Cambridge Business Park
Babraham Rd
Sawston
Cambridge
CB22 3JH
United Kingdom

Tel +44 (0) 1223 497 115

Cell Guidance Systems' reagents and services enable control, manipulation and monitoring of the cell, both *in vitro* and *in vivo*.

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General info@cellgs.com
Technical Enquiries tech@cellgs.com
Quotes quotes@cellgs.com
Orders order@cellgs.com

www.cellgs.com

EUROPE
Cell Guidance Systems Ltd
Maia Building
Babraham Bioscience Campus
Cambridge
CB22 3AT
United Kingdom
T +44 (0) 1223 967316
F +44 (0) 1223 750186

USA
Cell Guidance Systems LLC
Helix Center
1100 Corporate Square Drive
St. Louis
MO 63132
USA
T 760 450 4304
F 314 485 5424