



Clonetics™ Rat Microglia Cells R-G – Technical Sheet

Introduction

Ready-to-use Rat Microglia Cells from neonatal Sprague-Dawley rats (post-natal day 3 or 4) are cell suspensions of high quality primary microglia cells prepared by standardized method and are ready for immediate culture upon thaw. Each vial of rat microglia cells contains ≥ 2 million viable cells. This will seed into thirteen wells of a 96-well plate using the recommended plating densities and medium. Some cell death will occur during the first few days after plating and debris will be observed - this is normal.

Cell System Components (Sold Separately)

- One normal rat microglia cell product (cryopreserved) (R-G-535)
- One bottle of DMEM (Lonza Catalog No. 12-604F or equivalent)
- One bottle of heat-inactivated fetal bovine serum (Sigma Catalog No. F4135 or equivalent)
- One vial of 45% D-glucose (Sigma Catalog No. G8769 or equivalent)
- One vial of 100 x penicillin/streptomycin solution (Lonza Catalog No. 17-602E or equivalent)

Medium / Supplement Description	Vendor / Catalog Number	Volume Required	Final Concentration / Percentage
DMEM	Lonza: 12-604F	176 ml	88%
Heat Inactivated Fetal Bovine Serum	Sigma: F4135	20 ml	10%
100x Penicillin / streptomycin solution	Lonza: 17-602E	2.0 ml	100 units potassium penicillin and 100 μ g streptomycin sulfate per ml
45% D-Glucose solution	Sigma: G8769	2.0 ml	4.5 g/L (in addition to 4.5 g/L in basal media for final D-glucose concentration of 9.0 g/L)

Characterization of Cells

Each lot of rat microglia cells is tested using mycoplasma PCR, bio-burden assay and immunohistochemistry, including positive immunostaining for microglia specific Tomato Lectin (TL) and IBA1.

Performance

Plating Format	Volume of Media to Add to 0.25 ml Cell Suspension	Recommended Seeding Volume after Diluting	Number of Wells to Plate
96-well plate	1080 μ l	100 μ l/well	13 wells

Quality Control

The cells test negative for mycoplasma and bacteria. Additional molecular and immunochemical testing for quality is done following conditions that mimic shipping.

Ordering Information

Rat Microglia Cells (Pooled)

Cat. No.	Product	Description
R-G-535	Rat microglia cells, cryopreserved	≥2 million viable cells in a 0.25 ml cell suspension

Rat Microglia Growth Media (Sold Separately):

Cat. No.	Product	Description
12-604F	DMEM	Dulbecco's Modified Eagle's Medium with 4.5 g/L glucose, with L-glutamine, 500 ml
17-602E	Penicillin-Streptomycin Mixture	Contains 10,000 units potassium penicillin and 10,000 µg streptomycin sulfate per ml in 0.85% saline, 100 ml

Heat Inactivated Fetal Bovine Serum and 45% D-glucose are also necessary to create complete rat microglia cell growth media and must be purchased separately.

Product Warranty

Cultures have a finite lifespan *in vitro*.

Lonza guarantees the performance of its cells in the following manner only if Clonetics™ Media and Reagents are used exclusively and the recommend protocols are followed. The performance of cells is not guaranteed if any modifications are made to the complete cell system.

1. Clonetics™ Rat Microglia Cells are assured to be viable and functional when thawed and maintained properly.
2. Clonetics™ Rat Microglia Cells are cryopreserved immediately after isolation without culturing prior to cryopreservation. Routine characterization of microglia cells includes positive immunostaining for microglia specific Tomato Lectin (TL) and IBA1. Lonza guarantees rat microglia cells will express the markers described when plated out of cryopreservation.

When placing an order or to contact Scientific Support, please refer to the product numbers and descriptions listed above. For a complete listing of

all Clonetics™ Products, refer to the Lonza website or the current Lonza catalog. To obtain a catalog, additional information or to speak with Scientific Support, you may contact Lonza by web, e-mail, telephone, fax or mail (See page 1 for details).

THESE PRODUCTS ARE FOR RESEARCH USE ONLY. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or *in vitro* procedures.

WARNING: Handle as a potentially biohazardous material under biosafety level 1 containment. These cells are not known to contain an agent known to cause disease in healthy adult humans. These cells have not been screened for hepatitis B, human immunodeficiency viruses or other adventitious agents. If you require further information, please contact your site safety officer or Scientific Support.

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