

Cryopreserved rat dorsal root ganglion neurons

R-DRG

Introduction

Ready to use rat dorsal root ganglion neurons (neonatal) are suspensions of high quality sensory neurons prepared by standardized methods, and are ready for immediate culture. Each vial of dorsal root ganglion neurons contains approximately 200,000 cells in 0.25 ml suspension. Cell death will occur during the first few days after plating and debris will be observed. This is normal. After approximately 4 days in culture, the cells will form a neurite network and by the 7th day, debris will be minimal. In the absence of mitotic inhibitors, the neurons tend to cluster (ganglionate) and detach from the substrate.

Recommended cell culture substrates

Primary neuronal cells need an appropriate substrate to adhere and survive. The preferred substrate is poly-D-lysine with laminin. Poly-D-lysine can also be used alone to coat the cell culture plasticware or cover slips. Coated cell culture plates, dishes, or cover slips can either be purchased from a supplier or prepared immediately prior to use. Protocols for the recommended substrates are available on our web site at www.lonza.com.

Characterization of cells

The rat dorsal root ganglion neurons stain positive for Tuj (10x and 20x).

Recommended medium

The recommended medium for the rat dorsal root ganglion neurons is the PNGM™ BulletKit™. The BulletKit™ contains a 200 ml bottle of primary neuron basal medium (PNBM) and PNGM™ SingleQuots™. For inhibition of schwann cell proliferation, mitotic inhibitors will also need to be added.

Performance

Recommended seeding density for subculture

Volume of plating medium	Plating format
7.75 ml for initial thawing	0.25 ml frozen suspension
200 µl/well	96-well plate
1 ml/well	24-well plate

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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

R-DRG-505	Rat dorsal Root ganglion neurons (DRG)	≥0.25 ml cell suspension
CC-4461	PNGM™ BulletKit™	Kit which contains a 200 ml bottle of PNBM and PNGM™ SingleQuots™
CC-3256	PNBM basal medium	Primary neuron basal medium (200 ml)
CC-4462	PNGM™ SingleQuots™	NSF-1, 4 ml; L-glutamine, 2 ml; GA, 0.2 ml

Product warranty

CULTURES HAVE A FINITE LIFESPAN *IN VITRO*. Lonza guarantees cell performance only when the approved media and supplements are used.

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