# Certificate of Analysis



# **GP2-293 Packaging Cell Line**

Catalog No.

**Lot Number** 

631458

Specified on product label.

### **Description**

GP2-293 is a HEK 293-based retroviral packaging cell line. The essential viral packaging genes gag and pol are stably integrated, the viral envelope must be supplied in trans. High titer retrovirus is produced by transient co-transfection of an MMLV- or MSCV-based retroviral expression vector and a plasmid that expresses a viral envelope, such as pVSV-G..

### **Package Contents**

1 ml GP2-293 Packaging Cell Line (2 x 10<sup>6</sup> cells)

### **Storage Conditions**

Store cells in liquid nitrogen (-196°C) or in a -150°C freezer

#### **Shelf Life**

1 year from date of receipt under proper storage conditions.

### **Storage Medium**

Cell Freezing Medium-DMSO 1x (Sigma-Aldrich Co., Cat. No. C6164)

### **Shipping Conditions**

Dry ice (-70°C)

#### **Product Documents**

Documents for Clontech® products are available for download at www.clontech.com/manuals The following documents apply to this product:

Retroviral Gene Transfer and Expression User Manual (PT3132-1)

# Cell Type Information

GP2-293 is an HEK-derived cell line transformed with adenovirus type 5 DNA (HEK-293). The cells were engineered to express the MoMuLV Gag and Pol proteins.

### Recommended Cell Culture Medium

90% DMEM; 10% fetal bovine serum; 4 mM L-glutamine; 100 units/ml penicillin G sodium; 100 µg/ml streptomycin sulfate; and 1 mM sodium pyruvate.

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# **Recommendations for Thawing Frozen Cells**

We recommend initiating the culture as soon as possible upon receipt. If the cells cannot be thawed and cultured immediately upon receipt, the vial should be held at temperatures below –79°C, preferably in liquid nitrogen vapor.

- 1. Thaw rapidly by placing tube of frozen culture in a 37°C water bath.
- 2. To reduce osmotic shock, dilute the cell suspension in 1 ml of complete growth medium and transfer it to a sterile 15 ml tube.
- 3. Add 5 ml of complete medium and mix.
- 4. Add an additional 5 ml of complete medium and mix gently.
- 5. Pellet the cells for 10 min at 125 x g. Discard supernatant.
- 6. Resuspend the pellet in 10 ml of complete growth medium and seed culture into a **collagen-coated** flask or culture dish.

**NOTE:** Culture vessels coated with compounds other than collagen may provide suitable growth substrates for GP2-293 cells; however, only collagen-coated plates have been tested at Clontech Laboratories, Inc. We recommend the BD Biosciences - Discovery Labware Falcon BioCoat Collagen I Cellware for culturing GP2-293 cells. The cells may be cultured on regular flasks/dishes (i.e., non-coated flasks/dishes) after recovery; however, if adherence is poor, we recommend collagen-coated vessels for all culturing purposes, including viral packaging.

# **Quality Control Data**

#### **Functional Tests**

The titer of virus produced by the GP2-293 Packaging Cell Line was determined to be at least 10<sup>6</sup> cfu/ml in a transient transfection assay.

#### **Safety Tests**

The GP2-293 Packaging Cell Line was tested to ensure that only replication-incompetent retrovirus is produced. Culture medium from GP2-293 cells transfected with pVSV-G was overlaid on NIH/3T3 cells that were stably expressing pLAPSN Vector. After 2–3 days in culture, medium from these cells was then overlaid on fresh NIH/3T3 cells. Staining these cells for alkaline phosphatase confirmed the absence of alkaline phosphatase expression and, therefore, the absence of replication-competent virus.

### Mycoplasma Contamination Test

This lot of the GP2-293 Packaging Cell Line was tested and found to be free of *Mycoplasma* contamination.

**NOTE:** The viral supernatants produced by these retroviral systems could, depending on your cloned insert, contain potentially hazardous recombinant virus. Due caution must be exercised in the production and handling of recombinant retrovirus. Appropriate NIH, regional, and institutional guidelines apply. The User Manual contains other general information and precautions.

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# **Notice to Purchaser**



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