



6042 Cornerstone Court W, Ste B  
San Diego, CA 92121  
**Tel:** 1.858.202.1401  
**Fax:** 1.858.481.8694  
**Email:** [info@bpsbioscience.com](mailto:info@bpsbioscience.com)

## Data Sheet

### **Firefly Luciferase - CHO Recombinant Cell Line Cat. #:79725**

#### **Product Description**

Recombinant CHO-K1 cells constitutively expressing the firefly luciferase reporter.

#### **Background**

Since CHO-K1 cells do not express endogenous human proteins, this cell line provides an excellent platform to compare specific killing of CAR-T or NK cells relative to CHO-K1 cells expressing both the firefly luciferase and a specific cell surface receptor of interest, such as B-Cell Maturation Antigen (BCMA) (BPS Bioscience #79724).

#### **Applications**

- Use as a control for co-culture killing assays.

#### **Host Cell**

Chinese Hamster Ovary (CHO)-K1, adherent epithelial cells.

#### **Format**

Each vial contains  $2 \times 10^6$  cells in 1 ml of FBS with 10% DMSO.

#### **Storage**

Store in liquid nitrogen immediately upon receipt.

#### **Cell Culture**

**Thaw Medium 3 (BPS Bioscience, #60186):** Ham's F-12 medium (Hyclone, #SH30526.01) supplemented with 10% FBS (Life technologies, #26140-079) and 1% Penicillin/Streptomycin (Hyclone, #SV30010.01).

**Growth Medium 3D (BPS Bioscience, #79539):** Thaw medium 3 (BPS Bioscience, #60186) plus 1 mg/ml of Geneticin (Life technologies, #11811031) to ensure recombinant expression.

Cells should be grown at 37°C with 5% CO<sub>2</sub> using Growth Medium 3D. Cells should exhibit a typical cell division time of ~24 hours.

It is recommended to quickly thaw the frozen cells from liquid nitrogen in a 37°C water bath, transfer to a tube containing 10 ml of Thaw Medium 3 (**no Geneticin**), spin the cells down,

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: [info@bpsbioscience.com](mailto:info@bpsbioscience.com)

Please visit our website at: [www.bpsbioscience.com](http://www.bpsbioscience.com)



6042 Cornerstone Court W, Ste B  
San Diego, CA 92121  
**Tel:** 1.858.202.1401  
**Fax:** 1.858.481.8694  
**Email:** [info@bpsbioscience.com](mailto:info@bpsbioscience.com)

remove the supernatant, and then re-suspend the cells in pre-warmed Thaw Medium 3 (**no Geneticin**). Then transfer the re-suspended cells to a T25 flask and culture in a 37°C CO<sub>2</sub> incubator overnight. The next day, replace the medium with fresh Thaw Medium 3 (**no Geneticin**) and continue growing in a CO<sub>2</sub> incubator at 37°C until the cells are ready to be split. Cells should be split before they reach complete confluence. After the first passage, switch to Growth Medium 3D (**contains Geneticin**).

To passage the cells, rinse the cells with Phosphate Buffered Saline (PBS), detach the cells from the culture vessel with 0.05% Trypsin/EDTA, and add Growth Medium 3D and transfer to a tube. Next, spin the cells down, remove the supernatant, and then re-suspend the cells and seed appropriate aliquots of the cell suspension into new culture vessels. Suggested sub-cultivation ratios: 1:10 to 1:20 twice a week.

To freeze the cells down, rinse the cells with Phosphate Buffered Saline (PBS), and detach the cells from the culture vessel with 0.05% Trypsin/EDTA. After detachment, add Thaw Medium 3 (**no Geneticin**) and count the cells, then transfer to a tube, spin the cells down, and resuspend in 4°C Freezing Medium (10% DMSO + 90% FBS) at  $\sim 2 \times 10^6$  cells/ml. Dispense 1 ml of cell aliquots into each cryogenic vial. Place vials in an insulated container for slow cooling and store at -80°C overnight. Transfer to liquid nitrogen the next day for storage. It is recommended to expand the cells and freeze down more than 10 vials of cells for future use at early passages.

### **Mycoplasma Testing**

This cell line has been screened using the Venor™ GeM Mycoplasma Detection Kit, PCR Based (Sigma, #MP0025) to confirm the absence of Mycoplasma contamination.

### **Materials Required by Not Supplied**

- Thaw Medium 3 (BPS Bioscience, #60186)
- Growth Medium 3D (BPS Bioscience, #79539)
- 96-well tissue culture-treated white clear-bottom assay plate
- ONE-Step luciferase assay system (BPS Bioscience, #60690) or other luciferase reagent for measuring firefly luciferase activity
- Luminometer

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

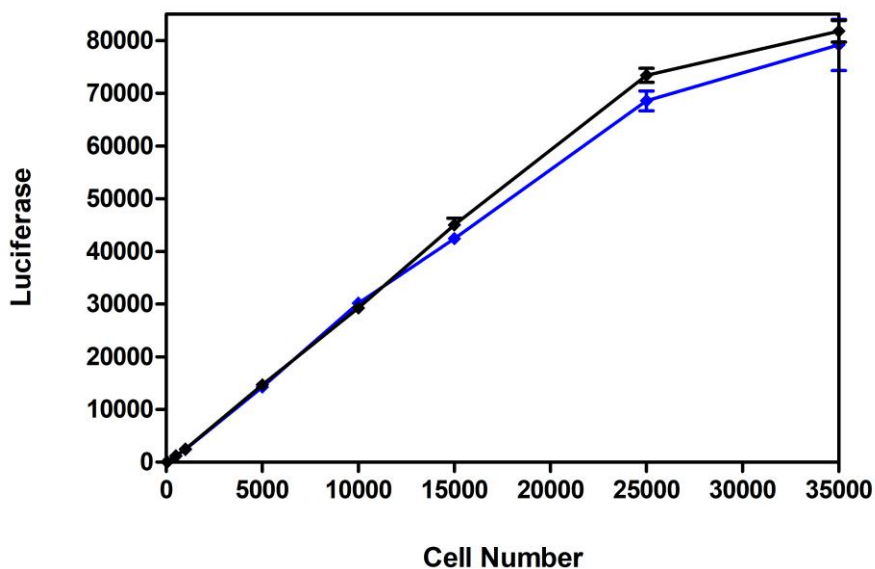
To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: [info@bpsbioscience.com](mailto:info@bpsbioscience.com)

Please visit our website at: [www.bpsbioscience.com](http://www.bpsbioscience.com)

**Figure 1. Luciferase activity of Firefly Luciferase CHO recombinant cells compared with BCMA / Luciferase CHO recombinant cells.**

Firefly Luciferase CHO recombinant cells (blue line) and BCMA / Luciferase CHO recombinant cells (BPS Bioscience, #79724; black line) were seeded in a 96-well plate at various densities. The next day, luciferase activity was measured using the ONE-Step luciferase assay system (BPS Bioscience, #60690).

**License Disclosure**

Purchase of this cell line grants you with a 10-year license to use this cell line in your immediate laboratory, for research use only. This license does not permit you to share, distribute, sell, sublicense, or otherwise make the cell line available for use to other laboratories, departments, research institutions, hospitals, universities, or biotech companies. The license does not permit use of this cell line in humans or for therapeutic or drug use. The license does not permit modification of the cell line in any way. Inappropriate use or distribution of this cell line will result in revocation of the license and result in an immediate cease of sales and distribution of BPS products to your laboratory. BPS does not warrant the suitability of the cell line for any particular use, and does not accept any liability in connection with the handling or use of the cell line. Modifications of this cell line, transfer to another facility, or commercial use of the cells may require a separate license and additional fees; contact [sales@bpsbioscience.com](mailto:sales@bpsbioscience.com) for details. Publications using this cell line should reference BPS Bioscience, Inc., San Diego.

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: [info@bpsbioscience.com](mailto:info@bpsbioscience.com)

Please visit our website at: [www.bpsbioscience.com](http://www.bpsbioscience.com)



6042 Cornerstone Court W, Ste B  
San Diego, CA 92121  
**Tel:** 1.858.202.1401  
**Fax:** 1.858.481.8694  
**Email:** [info@bpsbioscience.com](mailto:info@bpsbioscience.com)

**Related Products**

| <b>Product</b>                                               | <b>Cat. #</b> | <b>Size</b> |
|--------------------------------------------------------------|---------------|-------------|
| BCMA / Luciferase CHO Recombinant Cell Line                  | 79724         | 2 vials     |
| NF- $\kappa$ B Reporter (Luc) - CHO-K1 Recombinant Cell Line | 60622         | 2 vials     |
| ONE-Step Luciferase Detection Reagent                        | 60690-1       | 10 ml       |
| ONE-Step Luciferase Detection Reagent                        | 60690-2       | 100 ml      |
| Growth Medium 3D                                             | 79539         | 500 ml      |
| Thaw Medium 3                                                | 60186-1       | 100 ml      |

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: [\*\*info@bpsbioscience.com\*\*](mailto:info@bpsbioscience.com)

Please visit our website at: [\*\*www.bpsbioscience.com\*\*](http://www.bpsbioscience.com)