Description

eGFP Daudi Cell Line is a Daudi cell line engineered to express enhanced GFP (eGFP) driven by an EF1a promoter. This cell line was generated by transduction with Enhanced GFP Lentivirus (Puromycin) (BPS Bioscience #78639).

This cell line has been validated by flow cytometry for eGFP expression.

Background

Daudi is a B lymphoplast cell line isolated from a human Burkitt lymphoma patient, which is commonly used in the study of leukemia. Burkitt lymphoma is a type of B-cell non-Hodgkin lymphoma, which is a rare and fast-growing cancer with origins often in the abdomen or spleen. This cell line is used as target cells in studies involving T cells. The presence of eGFP (enhanced green fluorescent protein) allows for easy assay readouts.

Application

- *In vitro* and *in vivo* fluorescence imaging.
- Use as target cells in CAR-T co-culture killing assays.

Materials Provided

Components	Format
2 vials of frozen cells	>1 x 10^6 cells in 1 ml of of Cell Freezing Medium (BPS Bioscience, #79796)

Host Cell

Daudi cells are a Burkitt's lymphoma B-cell line. Suspension cells.

Mycoplasma Testing

The cell line has been screened to confirm the absence of Mycoplasma species.

Materials Required but Not Supplied

These materials are not supplied with this cell line but are necessary for cell culture and cellular assays. BPS Bioscience reagents systems are validated and optimized for use with this cell line and are highly recommended for best results. Media components are provided in the Media Formulations section.

Materials Required for Cell Culture

Name	Ordering Information
Thaw Medium 2	BPS Bioscience #60184
Growth Medium 2K	BPS Bioscience #78078

Storage Conditions

Cells will arrive upon dry ice and should immediately be thawed or stored in liquid nitrogen upon receipt. Do not use a -80°C freezer for long term storage. Contact technical support at support@bpsbioscience.com if the cells are not frozen in dry ice upon arrival.

Media Formulations

For best results, the use of validated and optimized media from BPS Bioscience is highly recommended. To formulate a comparable but not BPS validated media, formulation components can be found below.

Note: Thaw Media does *not* contain selective antibiotics. However, Growth Media *does* contain selective antibiotics, which are used to maintain selective pressure on the cell population expressing the gene of interest. Cells should be grown at 37°C with 5% CO_2. BPS Bioscience's cell lines are stable for at least 10 passages when grown under proper conditions.

Media Required for Cell Culture

Thaw Medium 2 (BPS Bioscience #60184)
RPMI 1640 medium supplemented with 10% FBS, 1% Penicillin/Streptomycin.

Growth Medium 2K (BPS Bioscience #78078)
RPMI 1640 medium supplemented with 10% FBS, 1% Penicillin/Streptomycin, plus 0.25 µg/ml of Puromycin.

Cell Culture Protocol

Cell Thawing

1. Retrieve a cell vial from liquid nitrogen storage. Keep on dry ice until ready to thaw.

2. When ready to thaw, swirl the vial of frozen cells for approximately 60 seconds in a 37°C water bath. Once cells are thawed (it may be slightly faster or slower than 60 seconds), quickly transfer the entire content of the vial to an empty 50 ml conical tube.

   Note: Leaving the cells in the water bath at 37°C for too long will result in rapid loss of viability.

3. Using a 10 ml serological pipette, slowly add 10 ml of pre-warmed Thaw Medium 2 to the conical tube containing the cells. Thaw Medium 2 should be added dropwise while gently rocking the conical tube to permit gentle mixing and avoid osmotic shock.

4. Immediately spin down the cells at 300 *x g* for 5 minutes, remove the medium and resuspend the cells in 5 ml of pre-warmed Thaw Medium 2.

5. Transfer the resuspended cells to a T25 flask or T75 flask and incubate at 37°C in a 5% CO_2 incubator.

6. After 24 hours of culture, check for viability. For a T25 flask, add 3-4 ml of fresh Thaw Medium 2 and continue growing culture in a 5% CO_2 incubator at 37°C until the cells are ready to passage.

7. Cells should be passaged before they reach 2 x 10^6 cells/ml. At first passage and subsequent passages, use Growth Medium 2K.

Cell Passage

Dilute the cell suspension into new culture vessels at no less than 0.2 x 10^6 cells/ml in Growth Medium 2K. The sub-cultivation ratio should be calculated so that cells are maintained between 0.2 x 10^6 cells/ml and 2 x 10^6 cells/ml.

Cell Freezing

1. Spin down the cells at 300 *x g* for 5 minutes, remove the medium and resuspend the cell pellet in 4°C Cell Freezing Medium (BPS Bioscience #79796) at a density of ~2 x 10^6 cells/ml.

2. Dispense 1 ml of cell suspension into each cryogenic vial. Place the vials in an insulated container for slow cooling and store at -80°C overnight.

3. Transfer the vials to liquid nitrogen the next day for long term storage.

Note: It is recommended to expand the cells and freeze down at least 10 vials of cells at an early passage for future use.

Validation Data

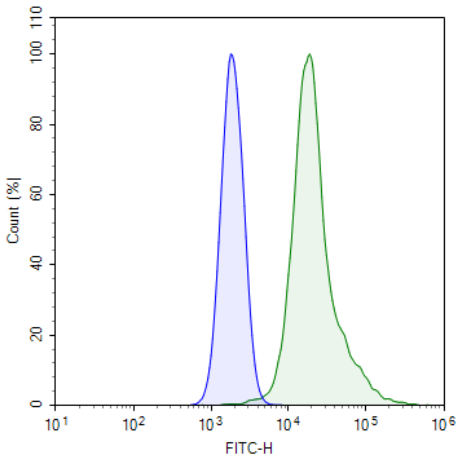

Figure 1. Flow cytometry analysis of the expression of eGFP in the eGFP Daudi Cell line.
Daudi parental cells (blue) and Daudi eGFP cells (green) were analyzed by flow cytometry. Y-axis indicates the % cell number. X-axis represents FITC intensity.

Data shown is representative. For lot-specific information, please contact BPS Bioscience, Inc. at support@bpsbioscience.com.

License Disclosure
Visit bpsbioscience.com/license for the label license and other key information about this product.

Troubleshooting Guide
Visit bpsbioscience.com/cell-line-faq for detailed troubleshooting instructions. For all further questions, please email support@bpsbioscience.com.

Related Products

Products	*Catalog #*	*Size*
Cas9-Expressing Daudi Cell Pool	78089	2 vials
Enhanced GFP Lentivirus (G418, Hygromycin and Puromycin)	78639	500 µl x 2
eGFP Lentivirus (Inducible TET On)	78629	500 µl x 2
eGFP/Firefly Luciferase MM.1S Cell Line	78376	2 vials
eGFP/Firefly Luciferase Raji Cell Line	78916	2 vials
eGFP/Firefly Luciferase Jurkat Recombinant Cell Line	78384	2 vials

Version 040924