

Product Sheet

Luciferase-ZsGreen1 K562 Cell Line

Catalog number: GM-C24924

Version 3.3.1.250107

Description	Luciferase-ZsGreen1 K562 Cell Line is a clonal stable K562 cell line that constitutively expresses the Luciferase gene, constructed using lentiviral technology.
Quantity	5E6 Cells per vial, 1 mL
Product Format	3 vials of frozen cells
Shipping	Shipped on dry ice
Storage Conditions	Liquid nitrogen immediately upon receipt
Target	/
Gene ID/Uniprot ID	/
Host Cell	K562
Recovery Medium	IMDM+10% FBS+1% P.S
Growth medium	IMDM+10% FBS+1% P.S+1 µg/mL Puromycin
Note	None
Freezing Medium	90% FBS+10% DMSO
Growth properties	Suspension
Growth Conditions	37°C, 5% CO ₂
Mycoplasma Testing	The cell line has been screened to confirm the absence of Mycoplasma species.
Safety considerations	Biosafety Level 2
Note	It is recommended to expand the cell culture and store a minimum of 10 vials at an early passage for potential future use.

Materials

Reagent	Manufacturer/Catalogue No.
IMDM	GIBCO/12440-053
Fetal Bovine Serum	Cegrogen biotech/A0500-3010
Puromycin	Genomeditech/GM-040401
ONE-Glo™ Luciferase Assay System	Promega/E6120

Figures

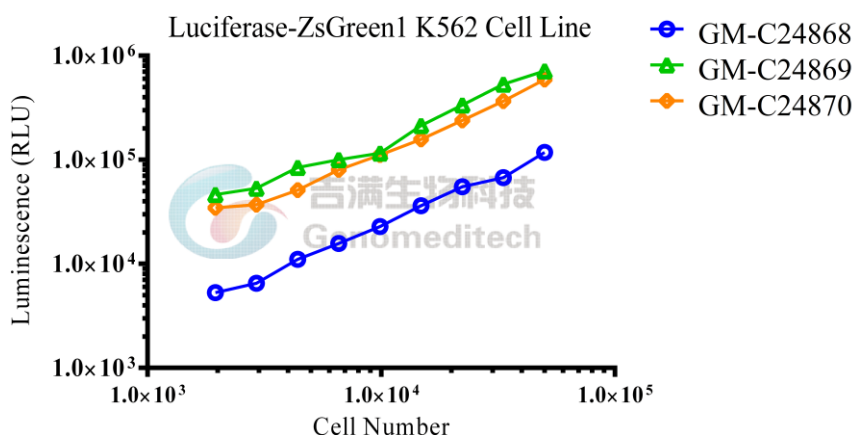


Figure 1 | Correlation between the number of cells and bioluminescence values. Serial dilutions of Luciferase-ZsGreen1 K562 Cell Line (Cat. GM-C24924) (96-well format). The firefly luciferase activity was measured using the GMOne-Step Luciferase Reporter Gene Assay Kit (Promega/E6120).

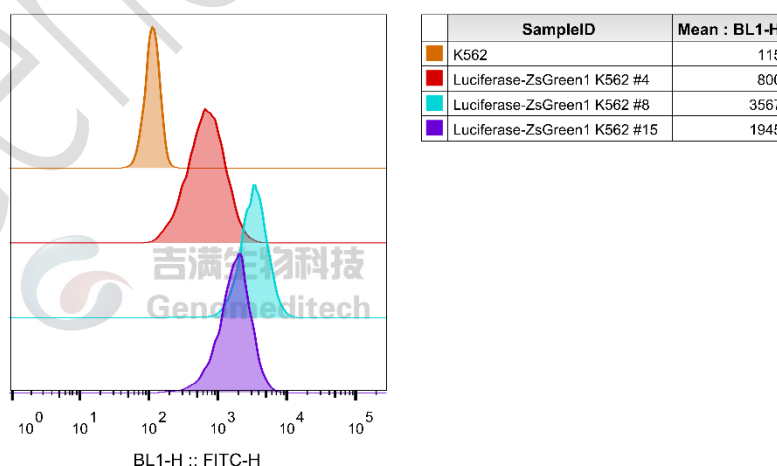


Figure 2 | Flow cytometry analysis of green fluorescent protein (GFP) expression in Luciferase-ZsGreen1 K562 Cell Line (Cat. GM-C24924).

Cell Recovery

Recovery Medium: IMDM+10% FBS+1% P.S

To insure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.

- Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 - 3 minutes).
- Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions.
- Transfer the vial contents to a centrifuge tube containing 5.0 mL complete culture medium. And spin at approximately 176 x g for 5 minutes. Discard supernatant.
- Resuspend cell pellet with the recommended complete medium. And dispense the suspension into 1 - 2 T-25 culture flasks.
- Incubate the culture at 37°C in a suitable incubator. A 5% CO₂ in air atmosphere is recommended if using the medium described on this product sheet.

Cell Freezing

Freezing Medium: 90% FBS+10% DMSO

- Centrifuge at 176 x g for 3 minutes to collect cells.
- Resuspend the cells in pre-cooled freezing medium and adjust the cell density to 5E6 cells/mL.
- Aliquot 1 mL into each vial.
- Place the vial in a controlled-rate freezing container and store at -80°C for at least 1 day, then transfer to liquid nitrogen as soon as possible.

Cell passage

Growth medium: IMDM+10% FBS+1% P.S+1 µg/mL Puromycin

Approximately 48 - 72 hours after the initial thawing, the cells can be passaged for the first time. After this initial passage, the culture medium can be adjusted to growth medium supplemented with antibiotics. If cells are not passaged within 48 hours, it is recommended to add some fresh recovery medium and place the flask horizontally.

- When the cell density reaches 1 - 1.2E6 cells/mL, subculture the cells. Do not allow the cell density to exceed 1.5E6 cells/mL.
- It is recommended to use T-25 flasks for subculturing.
- These cells are suspension cells, and it is recommended to use the "half-medium change" method to maintain optimal cell conditions during passaging.
- During passaging, you can directly add fresh growth medium to the culture flask, gently pipette to resuspend the cells, and then transfer the cell suspension to a new T-25 flask for continued culture.

Subcultivation Ratio: Maintain cultures at a cell concentraion between 3E5 and 1E6 viable cells/mL.

Medium Renewal: Every 2 to 3 days

Notes

- These cells are sensitive to density, so please ensure that the cell density is maintained within an appropriate range during culture and subculturing.
- During the first passage, pay attention to the nutrient supply; if not subculturing, make sure to add fresh recovery medium every other day as needed.

Related Products

Labeled Cells	
Luciferase-GFP MCF-7 Cell Line	GFP MKN45 Cell Line
Luciferase A498 Cell Line	Luciferase B16-F10 Cell Line
Luciferase HL-60 Cell Line	Luciferase MIA PaCa-2 Cell Line
Luciferase MM.1R Cell Line	Luciferase NCI-H929 Cell Line
Luciferase OVCAR3 Cell Line	Luciferase U-937 Cell Line
Luciferase-ZsGreen1 Raji Cell Line	
D-Luciferin, Potassium Salt	D-Luciferin, Sodium Salt

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