

# Product Sheet

## Luciferase Raji (CD20 KO) Cell Line

Catalog number: GM-C40275

Version 3.3.1.26.903

|                              |                                                                                                                                                                                             |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b>           | Luciferase Raji (CD20 KO) Cell Line Cell Line is a clonal stable Raji (Human CD20 KO) cell line that constitutively expresses the Luciferase gene, constructed using lentiviral technology. |
| <b>Quantity</b>              | 5E6 Cells per vial, 1 mL                                                                                                                                                                    |
| <b>Product Format</b>        | 1 vial of frozen cells                                                                                                                                                                      |
| <b>Shipping</b>              | Shipped on dry ice                                                                                                                                                                          |
| <b>Storage Conditions</b>    | Liquid nitrogen immediately upon receipt                                                                                                                                                    |
| <b>Target</b>                | Human CD20                                                                                                                                                                                  |
| <b>Gene ID/Uniprot ID</b>    | /                                                                                                                                                                                           |
| <b>Host Cell</b>             | Raji                                                                                                                                                                                        |
| <b>Recovery Medium</b>       | RPMI 1640+10% FBS+1% P.S                                                                                                                                                                    |
| <b>Growth medium</b>         | RPMI 1640+10% FBS+1% P.S+3 µg/mL Blasticidin+0.5 µg/mL Puromycin                                                                                                                            |
| <b>Note</b>                  | None                                                                                                                                                                                        |
| <b>Freezing Medium</b>       | 90% FBS+10% DMSO                                                                                                                                                                            |
| <b>Growth properties</b>     | Suspension                                                                                                                                                                                  |
| <b>Growth Conditions</b>     | 37°C, 5% CO <sub>2</sub>                                                                                                                                                                    |
| <b>Mycoplasma Testing</b>    | The cell line has been screened to confirm the absence of Mycoplasma species.                                                                                                               |
| <b>Safety considerations</b> | Biosafety Level 2                                                                                                                                                                           |
| <b>Note</b>                  | 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.              |
|---------------------------------------------------|-----------------------------------------|
| RPMI 1640                                         | gibco/C11875500BT                       |
| Fetal Bovine Serum                                | ExCell/FSP500                           |
| Pen/Strep                                         | Thermo/15140-122                        |
| Blasticidin                                       | Genomeditech/ <a href="#">GM-040404</a> |
| Puromycin                                         | Genomeditech/ <a href="#">GM-040401</a> |
| Anti-CD20 mIgG2a Antibody (ocrelizumab)           | Genomeditech/GM-88845AB                 |
| GMOne-Step 2.0 Luciferase Reporter Gene Assay Kit | Genomeditech/ <a href="#">GM-040513</a> |

## Figures

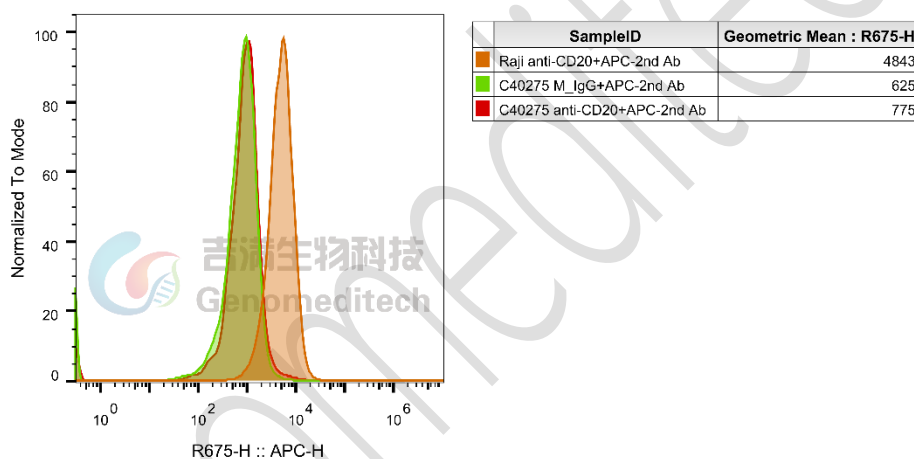


Figure 1 | Luciferase Raji (CD20 KO) Cell Line (Cat. GM-C40275) was determined by flow cytometry using Anti-CD20 mIgG2a Antibody (ocrelizumab) (Cat. GM-88845AB).

### Luciferase Raji (CD20 KO) Cell Line

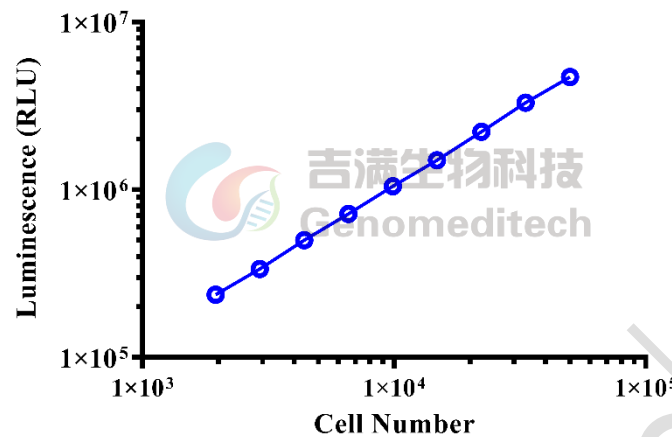


Figure 2 | Correlation between the number of cells and bioluminescence values. Serial dilutions of Luciferase Raji (CD20 KO) Cell Line (Cat. GM-C40275) (96-well format). The firefly luciferase activity was measured using the GMOne-Step 2.0 Luciferase Reporter Gene Assay Kit (Cat. [GM-040513](#)).

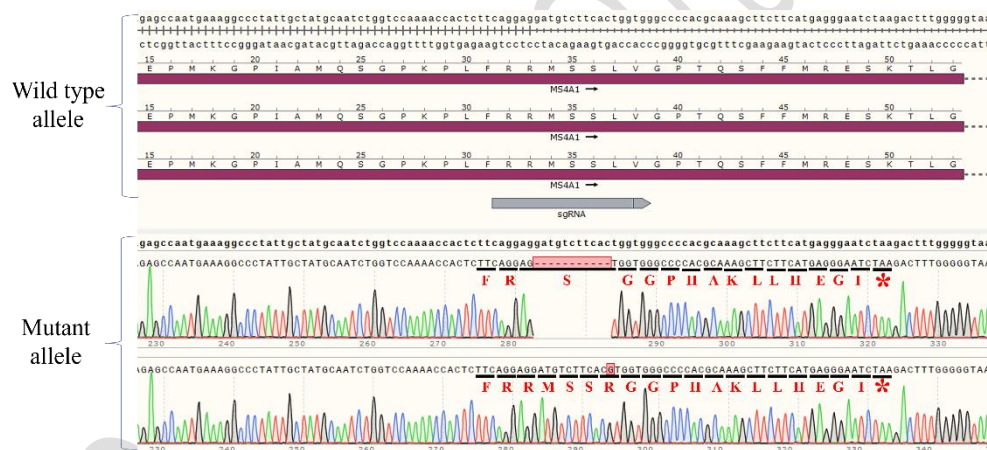


Figure 3 | The Sanger sequencing of the Luciferase Raji (CD20 KO) Cell Line showed successful knockout of CD20.

## Cell Recovery

Recovery Medium: RPMI 1640+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).

- b) 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.
- c) 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.
- d) Resuspend cell pellet with the recommended complete medium. And dispense the suspension into an appropriate culture flask and initially place the flask in an upright position after thawing.
- e) Incubate the culture at 37°C in a suitable incubator. A 5% CO<sub>2</sub> in air atmosphere is recommended if using the medium described on this product sheet.

## Cell Freezing

Freezing Medium: 90% FBS+10% DMSO

- a) Centrifuge at 176 x g for 3 minutes to collect cells.
- b) Resuspend the cells in pre-cooled freezing medium and adjust the cell density to 5E6 cells/mL.
- c) Aliquot 1 mL into each vial.
- d) 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: RPMI 1640+10% FBS+1% P.S+3 µg/mL Blasticidin+0.5 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.

- a) When the cell density reaches 1 - 1.2E6 cells/mL, subculture the cells. Do not allow the cell density to exceed 1.2E6 cells/mL.
- b) It is recommended to use T-25 flasks for subculturing.
- c) These cells are suspension cells, and it is recommended to use the "half-medium change" method to maintain optimal cell conditions during passaging.
- d) 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 2.5E5 and 8E5 viable cells/mL.**

**Medium Renewal: Every 2 to 3 days**

## Notes

- a) These cells are sensitive to density, so please ensure that the cell density is maintained within an appropriate range during culture and subculturing.
- b) 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

| CD20(MS4A1)                                              |                                                      |
|----------------------------------------------------------|------------------------------------------------------|
| H_CD20 KO RAMOS Cell Line                                | ADCC FcγRIIIa(158V) Jurkat Effector Cell Line        |
| Cynomolgus_CD20 CHO-K1 Cell line                         | H_CD20 CHO-K1 Cell Line                              |
| H_CD20 HEK-293 Cell Line                                 | Mouse_CD20 CHO-K1 Cell Line                          |
| Anti-CD20 hIgG1 Reference Antibody (Ocrebio)             | Anti-CD20 hIgG1 Reference Antibody(Ritubio)          |
| Anti-CD3×CD20 hIgG1 Bispecific Antibody (Epcobio)        | Anti-H_MS4A1(CD20) hIgG1 Antibody(Ocrelizumab)       |
| CD19                                                     |                                                      |
| H_CD19 KO Raji Cell Line                                 | Cynomolgus_CD19 CHO-K1 Cell Line                     |
| Cynomolgus_CD19 HEK-293 Cell Line                        | H_CD19 CHO-K1 Cell line                              |
| H_CD19 HEK-293 Cell Line                                 | Mouse_CD19 CHO-K1 Cell Line                          |
| Anti-CD19 hIgG1 Reference Antibody (Loncbio)             | Anti-CD19×CD3 hIgG1 Antibody[PIT-565(CD58 K34A)]     |
| Anti-H_CD19 hIgG1/hIgG2 Antibody(Tafasitamab)            |                                                      |
| CD3                                                      |                                                      |
| Cynomolgus_CD3D CD3E Reporter Jurkat(CD3DE KO) Cell Line | Jurkat CD3-BsAb Reporter Cell Line                   |
| Cynomolgus_CD3 HEK-293 Cell Line                         | Cynomolgus_CD3E(Membrane Bound ECD) CHO-K1 Cell Line |
| H_CD3 CHO-K1 Cell Line                                   | H_CD3 HEK-293 Cell Line                              |
| H_CD3(TCR V2) CHO-K1 Cell Line                           | H_CD3(TCR V2) HEK-293 Cell Line                      |
| H_CD3(TCRαβ delta V) HEK-293 Cell Line                   | H_CD3D CD3E KO Jurkat Cell Line                      |
| H_CD3E KO Jurkat Cell Line                               | H_CD3E(Membrane Bound ECD) CHO-K1 Cell Line          |
| Mouse_CD3 HEK-293 Cell Line                              |                                                      |
| Anti-CD19×CD3 hIgG1 Antibody[PIT-565(CD58 K34A)]         | Anti-CD3 epsilon hIgG1 Antibody [OKT-3 (muromonab)]  |
| Anti-CD3 hIgG1 Antibody(CH2527)                          | Anti-CD3×CD20 hIgG1 Bispecific Antibody (Epcobio)    |
| Anti-CD3×FCRL5 hIgG1 Bispecific Antibody(cevostamab)     | Anti-CD3E×BCMA hIgG4 Reference Antibody (Tecbio)     |
| Anti-CD3E×DLL3 hIgG1 Bispecific Antibody(Tarlabio)       | Anti-CD3E×MUC17 hIgG1 Bispecific Antibody(Vepsitbio) |
| Anti-mouse CD3ε mIgG2a Antibody(145-2C11)                |                                                      |

## License Agreement:

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