

## Raji/Human CD155 Stable Cell Line Data Sheet

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## Raji/Human CD155 Stable Cell Line

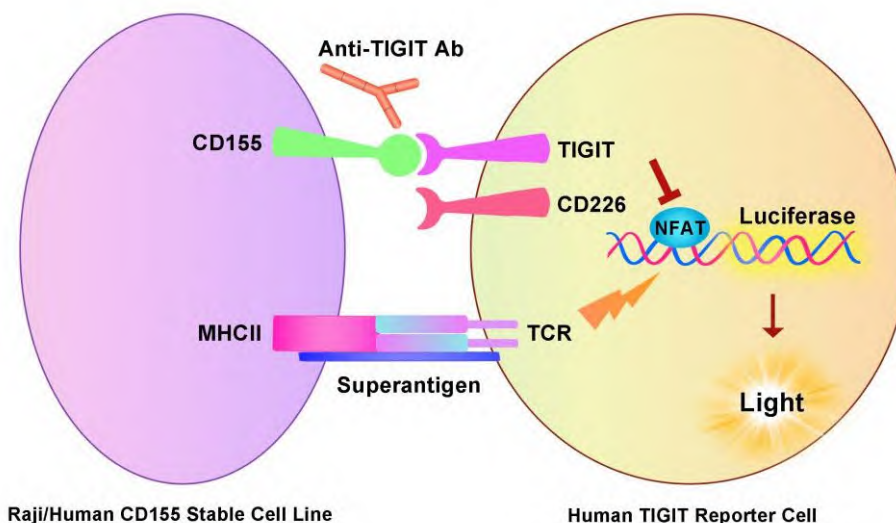
Catalog No.	Size
SCRAJ-STT076	2 × (1 vial contains ~5×10 <sup>6</sup> cells)

### • Description

The Raji/Human CD155 Stable Cell Line was engineered to express full length human CD155 (Uniprot: P15151-1), used to mimic cancer target cells. When co-cultured with human TIGIT Reporter Cell, the TIGIT/CD155 interaction inhibits TCR signaling and NFAT-mediated luminescence. Blocking the TIGIT/CD155 interaction by either anti-TIGIT or anti-CD155 antibodies releases the inhibitory signal and results in TCR activation and NFAT-mediated luminescence.

### • Application

- Useful for cell-based CD155 binding assay
- Useful as CD155-expressing target cells in reporter gene assay



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## • Cell Line Profile

Cell line	Raji/Human CD155 Stable Cell Line
Host Cell	Raji
Property	Suspension
Complete Growth Medium	RPMI-1640 + 10% FBS
Selection Marker	Hygromycin B (20 µg/mL)
Incubation	37°C with 5% CO <sub>2</sub>
Doubling Time	16-20 hours
Transduction Technique	Lentivirus

## • Materials Required for Cell Culture

- RPMI Medium 1640 (ATCC, Cat. No. 30-2001)
- Fetal bovine serum (Gibco, Cat. No. 10091-148)
- Hygromycin B (Invitrogen, Cat. No. 10687010)

**Note:** For selection antibiotics, we highly recommend using the specified brand. The activity of antibiotics may vary between manufacturers, so if you choose to use a different brand, it is essential to validate whether the concentration recommended in the culture medium is suitable. Regardless of the brand used, we recommend maintaining a backup culture without selection antibiotics to avoid potential cell loss due to inappropriate antibiotic concentration.

- Penicillin-Streptomycin (Gibco, Cat. No. 15140-122)
- Complete Growth Medium: RPMI-1640 + 10% FBS, 1%P/S
- Culture Medium: RPMI-1640 + 10% FBS, Hygromycin B (20 µg/mL), 1%P/S
- Freeze Medium: 90% FBS, 10% (V/V) DMSO
- T-75 Culture flask (Corning, Cat. No. 430641)
- Cryogenic storage vials (SARSTEDT, Cat. No. 72.379.007)
- Thermostat water bath
- Centrifuge (Cence, Model: L550)
- Cell counter (MONWEI, Model: SmartCell200A Plus)
- CO2 Incubator (Thermo, Model: 3111)
- Biological Safety Cabinet (Thermo, Model: 1389)

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## • *Recovery*

1. Thaw the vial by gently agitating it in a 37°C water bath. To minimize the risk of contamination, ensure the cap remains out of the water. Thawing should be completed quickly, typically within 3-5 minutes.
2. After thawing, promptly remove the vial from the water bath and decontaminate it by spraying with 70% ethanol. From this point onward, all operations must be performed under strict aseptic conditions.
3. Transfer the contents of the vial to a centrifuge tube containing 4.0 mL of complete growth medium.
4. Count viable cells and centrifuge at approximately 1000 rpm for 5 minutes.
5. Discard the supernatant and resuspend the cell pellet in an appropriate amount of fresh **complete growth medium**. Adjust the cell density of the suspension to  $1 \times 10^6$  viable cells/mL and transfer cells to an appropriate size vessel.
6. Incubate at 37°C with 5% CO<sub>2</sub> incubator.

## • *Subculture*

Cell viability may be low after thawing, and full recovery (viability >90%) may take up to 1-2 weeks. Once the cell density reaches approximately  $1.5 \times 10^6$  viable cells/mL, adjust the density to a range of  $1 \times 10^5$ - $2 \times 10^5$  viable cells/mL by either adding the fresh **culture medium** or replacing the existing culture medium. Avoid allowing the cell density to exceed  $2 \times 10^6$  cells/mL, as this may negatively impact cell performance in subsequent passages. T-75 flasks are recommended for subculturing.

• **Subculturing Frequency:** It is recommended to subculture every 3-4 days, adjusting the frequency based on the cell density in your specific culture system.

**Note:** After recovery, maintain the cells for 1-2 passages in the complete growth medium not containing the selection marker, if the cells are in good condition (viability >90%), transition to the culture medium containing the selection marker during subculturing.

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## • *Cryopreservation*

1. Count viable cells and harvest the cell suspension.
2. Centrifuge at 1000 rpm for 5 min at room temperature and resuspend cells in ice cold freezing medium to a concentration of  $5 \times 10^6$  to  $1 \times 10^7$  cells/mL.
3. Aliquot the cell suspension into cryogenic storage vials. Place the vials in a programmable cooler or an insulated box placed in a  $-80^\circ\text{C}$  freezer overnight, then transfer to liquid nitrogen storage for long-term storage.

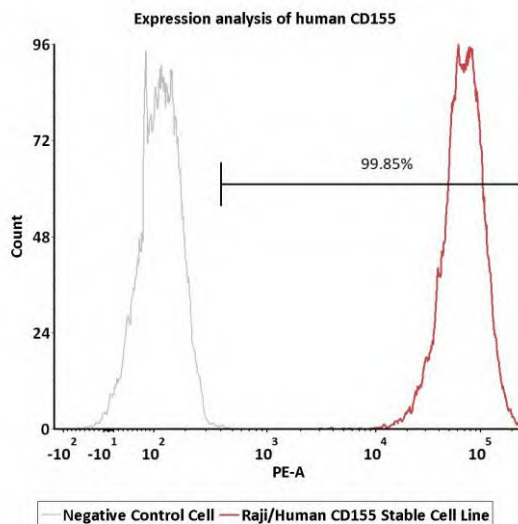
**Note:** It is recommended to establish a cell bank at the earliest possible passage for long-term use.

## • *Storage*

Cells must be received in a frozen state on dry ice and should be transferred to liquid nitrogen or a  $-80^\circ\text{C}$  freezer immediately upon receipt. If stored in a  $-80^\circ\text{C}$  freezer, it is recommended to limit the storage period to no more than two weeks. For long-term preservation, transfer the cells to liquid nitrogen is highly recommended.

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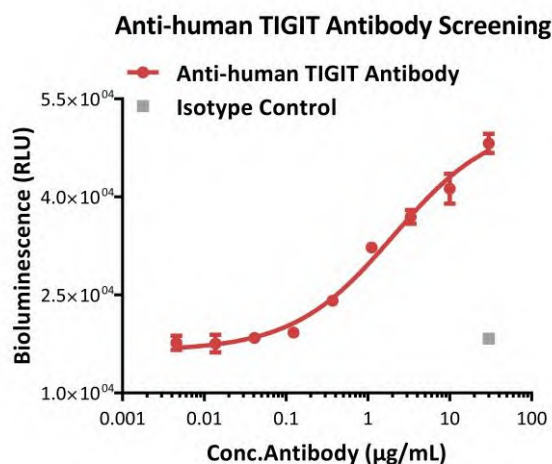
## • Receptor Assay



Catalog No.	Stable Cell Line	MFI for CD155 (PE)
NA	Negative Control Cell	113.79
SCRAJ-STT076	Raji/Human CD155 Stable Cell Line	67123.32

**Fig1. Expression analysis of human CD155 on Raji/Human CD155 Stable Cell by FACS.** Raji/Human CD155 Stable Cell Line or negative control cell were stained with PE-labeled anti-Human CD155 antibody.

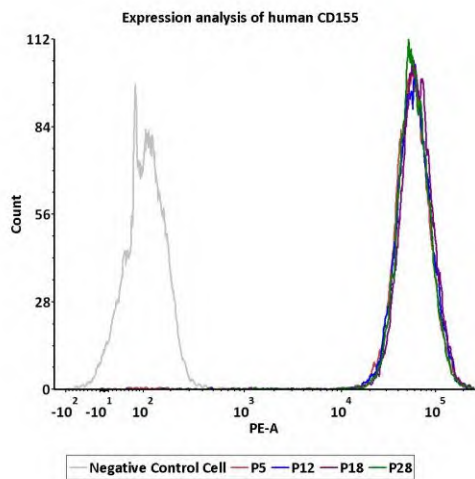
## • Application



**Fig2. Blocking activity of anti-human TIGIT antibody.** This Raji/Human CD155 Stable Cell Line was incubated with serial dilutions of antibodies in the presence of reporter cells expressing human TIGIT. The EC50 of anti-human TIGIT antibody was approximately 2.05 µg/mL.

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• *Passage Stability*



Passage	MFI for CD155 (PE)
P5	54637
P12	57014
P18	60346
P28	55681

**Fig3. Passage stability analysis of receptors expression by FACS.** Flow cytometry surface staining of human CD155 on Raji/Human CD155 Stable Cell Line demonstrates consistent mean fluorescent intensity across passage 5-28.

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## • *Related Products*

### Products

### Cat.No.

HEK293/Human PD-L1, GFP Tag Stable Cell Line	CHEK-ATP002
HEK293/Human 4-1BB Ligand / TNFSF9 Stable Cell Line	CHEK-ATP039
HEK293/Human 4-1BB / TNFRSF9 Stable Cell Line	CHEK-ATP038
Human PD-1/LAG-3 (Luc) Jurkat Reporter	SCJUR-STF063
Human PD-1 (Luc) Jurkat Reporter Cell	SCJUR-STF064
Human LAG-3 (Luc) Jurkat Reporter Cell	SCJUR-STF065
Raji/Human PD-L1 Stable Cell Line	SCRAJ-STT075
CHO/Human LILRB4 Stable Cell Line	SCCHO-ATP087
HEK293/Human LILRB4 Stable Cell Line	CHEK-ATP088
Raji/Human HVEM Stable Cell Line	SCRAJ-STF108
CHO/Human LIGHT Stable Cell Line	SCCHO-ATP109
CHO/Human BTLA Stable Cell Line	SCCHO-ATP110
HEK293/Human PD-1 Stable Cell Line	CHEK-ATP143
HEK293/Human HVEM Stable Cell Line	CHEK-ATP147
HEK293/Human NKp46 Stable Cell Line	CHEK-ATP153
HEK293/Human ITPRIPL1 Stable Cell Line	CHEK-ATP203
Human NKp46 (Luc) Jurkat Reporter Cell	SCJUR-STF130