Raji/Human PD-L1 Stable Cell Line Development Service Data Sheet

Raji/Human PD-L1 Stable Cell Line

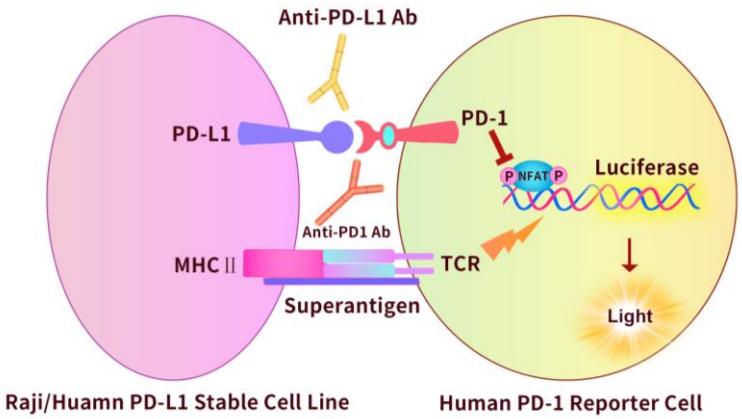
Catalog No.	Size
SCRAJ-STT075	2 × (1 vial contains ~5×10^6 cells)

• *Description*

The Raji/Human PD-L1 Stable Cell Line was engineered to express full length human PD-L1 (Gene ID: 29126, used to mimic cancer target cells. When co-cultured with human PD-1 Reporter Cell, the PD-1/PD-L1 interaction inhibits TCR signaling and NFAT-mediated luminescence. Blocking the PD-1/PD-L1 interaction by either anti-PD-1 or anti-PD-L1 antibodies releases the inhibitory signal and results in TCR activation and NFAT-mediated luminescence.

• *Application*

- Useful for cell-based PD-L1 binding assay
- Useful as PD-L1-expressing target cells in reporter gene assay



• *Cell Line Profile*

Cell line	Raji/Human PD-L1 Stable Cell Line
Host Cell	Raji
Property	Suspension
Complete Growth Medium	RPMI-1640 + 10% FBS
Selection Marker	Puromycin (2 μg/mL)
Incubation	37°C with 5% CO_2
Doubling Time	16-20 hours
Transduction Technique	Lentivirus

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• *Materials Required for Cell Culture*

- RPMI-1640 (ATCC, Cat.No.30-2001)
- Fetal bovine serum (Gibco, Cat.No.10091-148)
- Puromycin (InvivoGen, Cat.No.ant-pr-5b)
- Complete Growth Medium: RPMI-1640 + 10% FBS
- Culture Medium: RPMI-1640 + 10% FBS, Puromycin (2 μg/mL)
- Freeze Medium: 90% FBS, 10% (V/V) DMSO
- T-75 Culture flask (Corning, 430641)
- Cryogenic storage vials (SARSTEDT, 72.379.007)
- Thermostat water bath
- Centrifuge
- Luna cell counter (Logos Biosystems, LUNA-Ⅱ)
- CO_2 Incubator (Thermo, 3111)
- Biological Safety Cabinet (Thermo, 1389)

• *Recovery*

1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the cap out of the water. Thawing should be rapid (approximately 5 minutes).
2. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by spraying with 70% ethanol. All the operations from this point on should be carried out under strict aseptic conditions.
3. Transfer the vial contents to a centrifuge tube containing 4.0 mL complete growth medium.
4. Count viable cells and spin 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 1×10^6 viable cells/mL and transfer cells to an appropriate size vessel.
6. Incubate at 37°C with 5% CO_2 incubator

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• *Subculture*

Adjust the cell density at 1 x10^5-2 x10^5 viable cells/mL by the addition of fresh medium or replacement of culture medium. Do not allow the cell density to exceed 2 x10^6 cells/mL. T-75 flasks are recommended for subculturing.

- **Medium Renewal:** Add fresh culture medium every 3 to 4 days (depending on cell density)

• *Cryopreservation*

1. Count viable cells and harvest the cell suspension.
2. Centrifuge at 1000 rpm for 5 min at RT and resuspend cells in freezing medium to a concentration of 5×10^6 to 1×10^7 cells/mL.
3. Aliquot into cryogenic storage vials. Place vials in a programmable cooler or an insulated box placed in a –80°C freezer overnight, then transferring to liquid nitrogen storage.

• *Storage*

- **Product format:** Frozen
- **Storage conditions:** Liquid nitrogen immediately upon receipt

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• *Receptor Assay*

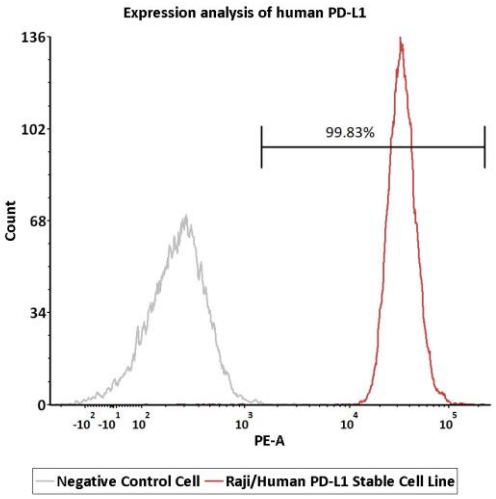

Fig1. Expression analysis of human PD-L1 on Raji/Human PD-L1 Stable Cell by FACS. Raji/Human PD-L1 Stable Cell Line or negative control cell were stained with PE-labeled anti-human PD-L1 antibody.

• *Application*

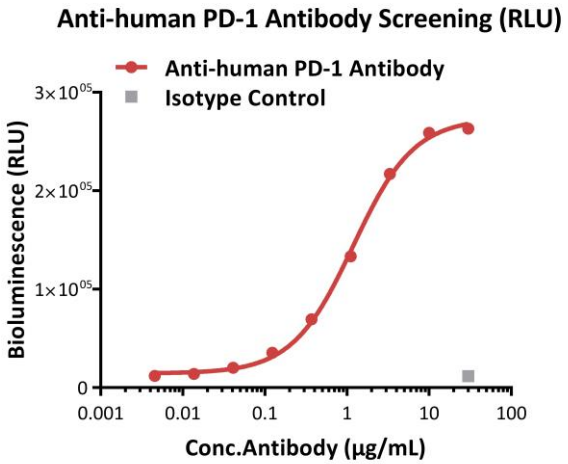

Fig2. Blocking activity of anti-human PD-1 antibody (RLU). This Raji/Human PD-L1 Stable Cell Line was incubated with serial dilutions of antibodies in the presence of reporter cells expressing human PD-1. The EC50 of anti-human PD-1 antibody was approximately 1.189 μg/mL.

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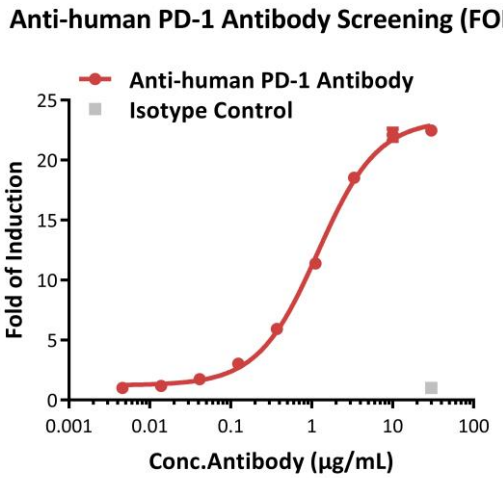
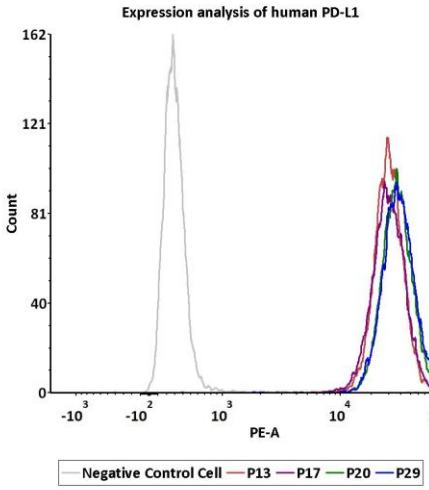


Fig3. Blocking activity of anti-human PD-1 antibody (FOLD). This Raji/Human PD-L1 Stable Cell Line was incubated with serial dilutions of antibodies in the presence of reporter cells expressing human PD-1. The max induction fold was approximately 22.47.

- ***Passage Stability***



Passage	MFI for PD-L1 (PE)
P13	28433
P17	28102
P20	33895
P29	34902

Fig4. Passage stability analysis of receptors expression by FACS. Flow cytometry surface staining of human PD-L1 on Raji/Human PD-L1 Stable Cell Line demonstrates consistent mean fluorescent intensity across across passage 13-29.

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• *Related Products*

Products	**Cat.No.**
Raji/Human CD155 Stable Cell Line	SCRAJ-STT076