293T human PVR (CD155) Cell Line

Cat. No: KC-1009 Version 18043101

Ⅰ. Cell Line Information

Catalog number	KC-1009
Cell line name:	293T human PVR (CD155) Cell Line
Gene ID/Accession #:	NM_006505.4
Host cell line	293T
Cell type:	Human embryonic kindey
Description:	HEK293T cell line stable expressing exogenous human CD155 gene
Quantity:	One vial of frozen cells ($5X10^6$ per vial)
Stability:	Stable in culture over a minimum of 10 passages
Application:	Drug screening and biological assays
Freeze medium:	70% DMEM + 20% FBS + 10% DMSO
Propagation medium:	DMEM + 10% FBS + 0.5ug/ml Puromycin
Selection marker:	Puromycin
Morphology:	Fibroblastoid cells growing as monolayer
Subculture:	Split saturated culture 1:4~1:5 every 2~3 days; seed out at about 1-3 x 10^5 cells/ml
Incubation:	37 °C with 5% CO_2
Doubling time:	Approximately 30 hours
Mycoplasma status:	Negative
Biosafety level:	1
Storage:	Liquid nitrogen immediately upon receiving

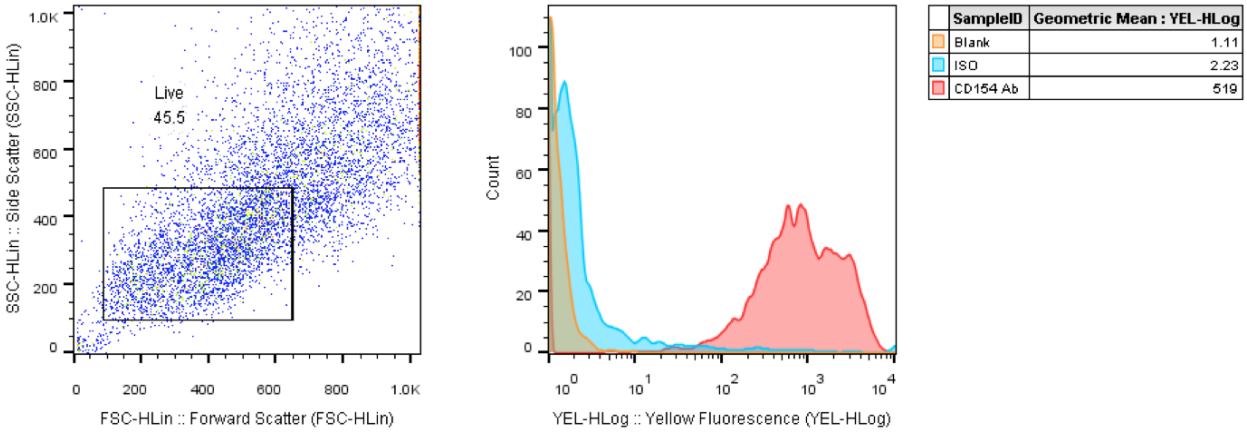
Ⅱ. Background

CD155, also named as PVR(pliovirus receptor), is a transmembrane glycoprotein belonging to immunoglobulin superfamily. CD155 is involved in the cellluar poliovirus infection in primates, and intercelluar adherens junctions between eptithelial cells.

Ⅲ. Cell Line Generation

293T human CD155 cell line was generated uisng lentiviral vector expessiong human CD155 sequence.

IV. Characterization using FACS



SampleID	Geometric Mean : YEL-HLog
Blank	1.11
ISO	2.23
CD154 Ab	519

Figure: Characterization of CD155 overexpressing in 293T stable clones using FACS.

V. Application

Hybridoma or Binders of ligand screening with FACS.

VI. Cell Resuscitation

1. Prewarm culture medium (DMEM supplemented with 10% FBS and 0.5ug/ml puromycin) in a 37°C water bath.
2. Thaw the frozen vial in a 37°C water bath for 1-2 minutes.
3. Transfer the vial into biosafety cabinet and wipe the surface with 70% ethanol.
4. Unscrew the top of the vial and transfer the cell suspension gently into a sterile centrifuge tube containing 9.0 mL complete culture medium.
5. Spin at ~ 125 x g for 5~7 minutes at room temperature and discard the supernatant without disturbing the pellet.
6. Resuspend cell pellet with the appropriate volume of complete medium and transfer the cell suspension into a T25 culture flask.
7. Incubate the flask at 37°C, 5% CO_2 incubator.
8. Split saturated culture 1:4 ~ 1:5 every 2~3 days; seed out at about 1-3 x 10^5 cells/ml.

VII. Cell Freezing

1. Prepare the freezing medium (70% DMEM + 20% FBS + 10% DMSO) fresh immediately before use.
2. Keep the freezing medium on ice and label cryovials.
3. Harvest cells to a sterile, conical centrifuge tube during the logarithmic growth period and count the cells.
4. Centrifuge the cells at 250 x g for 5 minutes at room temperature and carefully aspirate off the medium.
5. Resuspend the cells at a density of at least 3 x10^6 cells/ml in chilled freezing medium.
6. Aliquot 1 ml of the cell suspension into each cryovial.
7. Freeze cells in the CoolCell freezing container overnight in a −80°C freezer.

8. Transfer vials to liquid nitrogen for long-term storage.

VIII. References

1. Koike S, Horie H, Ise I, Okitsu A, Yoshida M, Iizuka N, Takeuchi K, Takegami T, Nomoto A (October 1990). "The poliovirus receptor protein is produced both as membrane-bound and secreted forms". EMBO J. 9 (10): 3217–24.
2. Mendelsohn CL, Wimmer E, Racaniello VR (1989). "Cellular receptor for poliovirus: molecular cloning, nucleotide sequence, and expression of a new member of the immunoglobulin superfamily". Cell. 56 (5): 855–65.
3. Maier MK, Seth S, Czeloth N, et al. (2007). "The adhesion receptor CD155 determines the magnitude of humoral immune responses against orally ingested antigens". European Journal of Immunology. 37 (8): 2214–25.

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