

Human Recombinant CD155 Stable Cell Line
Cat. No. M00591

Version 06062017

I. INTRODUCTION

Catalog Number: M00591

Cell Line Name: CHO-K1/CD155

Gene Synonyms: PVS; HVED; CD155; NECL5; TAGE4; Necl-5

Expressed Gene: Codon Optimized from M24407.1; no expressed tags

Host Cell: CHO-K1

Quantity: Two vials of frozen cells (1×10^6 per vial)

Stability: 15 passages

Application: Binding assay or use as immunogen

Freeze Medium: 95% complete growth medium, 5% DMSO

Complete Growth Medium: F12K, 10% FBS

Culture Medium: F12K, 10% FBS, 8 μ g/ml Puromycin

Mycoplasma Status[§]: Negative

Storage: Liquid nitrogen immediately upon receipt

II. BACKGROUND

CD155, commonly known as PVR (poliovirus receptor) and Necl-5 (nectin-like molecule-5), is a type I transmembrane single-span glycoprotein, and belongs to the nectins and nectin-like (Necl) subfamily. CD155 was originally identified based on its ability to mediate the cell attachment and entry of poliovirus (PV), an etiologic agent of the central nervous system disease poliomyelitis. The normal cellular function is in the establishment of intercellular adherens junctions between epithelial cells. CD155 may assist in an efficient humoral immune response generated within the intestinal immune system. It's been shown that CD155 can be recognized and bind by DNAM-1 and CD96, which promotes the adhesion, migration and NK-cell killing. Thus, inducing cell-mediated tumor-specific immunity.

[§]: GenScript employs a PCR-based method to test the mycoplasma. The test covers 11 of the most common strains of mycoplasma, (covering approximately 95% of *M. fermentans*, *M. hyorhinis*, *M. arginini*, *M. orale*, *M. salivarium*, *M. hominis*, *M. pulmonis*, *M. arthritidis*, *M. neurolyticum*, *M. hyopneumoniae* and *M. capricolum*) and one species *Ureaplasma* (*U. urealyticum*), with sufficient sensitivity and specificity.

III. REPRESENTATIVE DATA

Protein Expression Validation

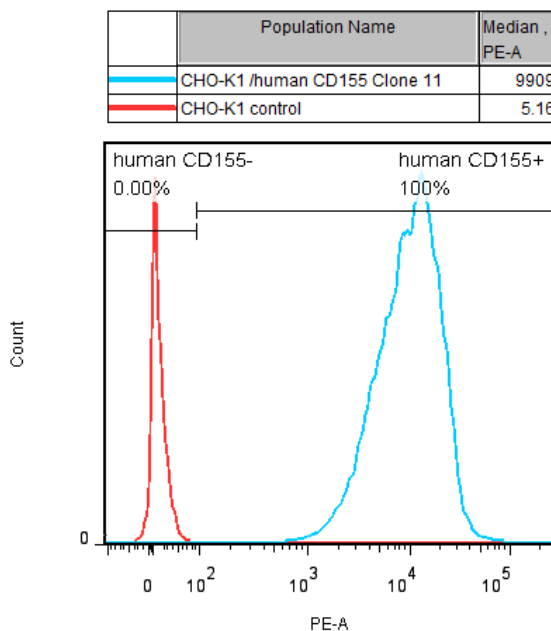


Figure 1. FACS analysis of CD155 expression in CHO-K1 cells.

IV. THAWING AND SUBCULTURING

Thawing Protocol

1. Remove the vial from liquid nitrogen tank and thaw cells quickly in a 37°C water-bath.
2. Just before the cells are completely thawed, decontaminate the outside of the vial with 70% ethanol and transfer the cells to a 15 ml centrifuge tube containing 9 ml of complete growth medium.
3. Pellet cells by centrifugation at 200 x g for 5 minutes and remove the medium.
4. Re-suspend the cells in complete growth medium.
5. Transfer the cell suspension to a 10 cm dish with 10 ml of complete growth medium.
6. Grow the cells in an incubator at 37°C, 5 % CO₂.
7. Add antibiotic the following day.

Sub-culturing Protocol

1. Remove the culture medium from cells.
2. Wash cells with PBS (pH=7.4) to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 ml of 0.25% (w/v) Trypsin- EDTA (GIBCO, Cat No. 25200-072) solution into 10 cm dish and observe the cells under an inverted microscope until cell layer is dispersed (usually within 3 to 5 minutes).

Note: To avoid cells clumping, do not agitate the cells by hitting or shaking the dish while waiting for the cells to detach. If cells are difficult to detach, please place the dish in a 37°C incubator for ~2 min.

4. Add 6.0 to 8.0 ml of complete growth medium into dish and aspirate cells by gently pipetting.
5. Centrifuge the cells at 200 x g for 5 minutes and remove the medium.
6. Re-suspend the cells in culture medium and add the cell suspension to a new culture dish.
7. Grow the cells in an incubator at 37°C, 5% CO₂.

Subcultivation Ratio: 1:4 to 1:8 weekly.

Medium Renewal: Every 2 to 3 days

V. REFERENCES

1. Freistadt MS, et al. Hematopoietic cells from CD155-transgenic mice express CD155 and support poliovirus replication ex vivo [J]. Microb Pathog. 2000, 29(4): 203-212.
2. Sato T, et al. Involvement of heterophilic trans-interaction of Necl-5/Tage4/PVR/CD155 with nectin-3 in formation of nectin- and cadherin-based adherens junctions [J]. Genes Cells, 2004 9(9): 791-799.
3. Kakunaga S, et al. Enhancement of serum- and platelet-derived growth factor-induced cell proliferation by Necl-5/Tage4/poliovirus receptor/CD155 through the Ras-Raf-MEK-ERK signaling [J]. J Biol Chem, 2004, 279(35): 36419-36425.
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5. Minami Y, et al. Involvement of up-regulated Necl-5/Tage4/PVR/CD155 in the loss of contact inhibition in transformed NIH3T3 cells [J]. Biochem Biophys Res Commun, 2007, 352(4): 856-860.

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