

HEK293/Human PSMA Stable Cell Line Data Sheet

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HEK293/Human PSMA Stable Cell Line

Catalog No.	Size
CHEK-ATP185	2 × (1 vial contains ~5×10 ⁶ cells)

• *Description*

The HEK293/Human PSMA Stable Cell Line was engineered to express the receptor full length human PSMA (Uniprot: Q04609-1), used to mimic cancer target cells. Surface expression of human PSMA was confirmed by flow cytometry.

• *Application*

- Useful for cell-based PSMA binding assay

• *Cell Line Profile*

Cell line	HEK293/Human PSMA Stable Cell Line
Host Cell	HEK293
Property	Adherent
Complete Growth Medium	DMEM + 10% FBS
Selection Marker	Puromycin (2 µg/mL)
Incubation	37°C with 5% CO ₂
Doubling Time	22-24 hours
Transduction Technique	Lentivirus

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• Materials Required for Cell Culture

- DMEM Medium (BasalMedia, Cat. No. L120KJ)

Note: If you are unable to obtain the specified DMEM medium (BasalMedia, Cat. No. L120KJ) in China, you may use an alternative DMEM medium (Gibco, Cat. No. 11965-092) or another suitable medium for culturing.

- Fetal bovine serum (CellMax, Cat. No. SA211.02)
- Puromycin (InvivoGen, Cat. No. ant-pr-5b)

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.

- 0.25% Trypsin-EDTA (1X), Phenol Red (Gibco, Cat. No. 25200-056)
- Penicillin-Streptomycin (Gibco, Cat. No. 15140-122)
- Phosphate Buffered Saline (1X) (HyClone, Cat. No. SH30256.01)
- Complete Growth Medium: DMEM + 10% FBS, 1%P/S
- Culture Medium: DMEM + 10% FBS, Puromycin (2 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. Centrifuge at approximately 1000 rpm for 5 minutes.
4. Resuspend the cell pellet with 5 mL **complete growth medium** and transfer the cell suspension into a T-75 flask containing 10-15 mL of pre-warmed **complete growth medium**.
5. Incubate at 37°C with 5% CO₂ incubator until the cells are ready to be split.

• Subculture

1. Cell viability may be low after thawing, and full recovery may take up to a week. Monitor the cells daily until the culture reaches 80-90% confluence. At this point, remove and discard the spent medium. Avoid allowing the cells to become over-confluent to ensure optimal cell health.
2. Wash the cells once with sterile PBS. Avoid adding PBS directly onto the cell surface.
3. Add 2 mL of 0.25% Trypsin-EDTA to the T-75 flask. Place the flask at 37°C for 2-3 minutes, until 90% of the cells have detached. Monitor under a microscope to avoid over-trypsinization.
4. Add 6.0 to 8.0 mL of **culture medium** using a pipette and gently rinse the cells from the surface of the T-75 flask. Gently pipette up and down several times to achieve a single cell suspension without cell clumps.
5. Transfer appropriate aliquots of the cell suspension to a new T-75 flask. A subcultivation ratio of 1:4 to 1:8 is recommended. Adjust the ratio based on your specific culture system.
6. Incubate at 37°C with 5% CO₂ incubator.
7. When the cell culture reaches 80-90% confluence, proceed to the next subculture. Avoid over-confluence, as this may negatively impact cell performance in subsequent passages.

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, transition to the **culture medium** containing the selection marker during subculturing.

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• ***Cryopreservation***

1. When the cell culture reaches 80-90% confluence, remove and discard the spent medium.
2. Wash the cells once with sterile PBS. Avoid adding PBS directly onto the cell surface.
3. Add 2 mL of 0.25% Trypsin-EDTA to the T-75 flask. Place the flask at 37°C for 2-3 minutes, until 90% of the cells have detached. Monitor under a microscope to avoid over-trypsinization.
4. Add 6.0 to 8.0 mL of complete growth medium using a pipette and gently rinse the cells from the surface of the T-75 flask. Gently pipette up and down several times to achieve a single cell suspension without cell clumps. Count the viable cells.
5. Transfer the cell suspension to a centrifuge tube. Centrifuge at 1000 rpm for 5 min at room temperature to pellet the cells.
6. After centrifugation, discard the supernatant. Resuspend the cells in ice cold freezing medium to a concentration of 5×10^6 to 1×10^7 cells/mL.
7. Aliquot the cell suspension into cryogenic storage vials. Place the vials in a programmable cooler or an insulated box placed in a -80°C freezer overnight, then transfer to liquid nitrogen storage for long-term storage.

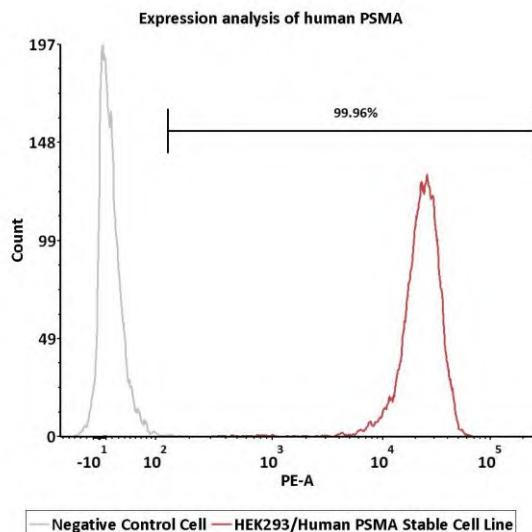
Note: It is recommended to establish a cell bank at the earliest possible passage for long-term use.

• ***Storage Condition***

Cells must be received in a frozen state on dry ice and should be transferred to liquid nitrogen or a -80°C freezer immediately upon receipt. If stored in a -80°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

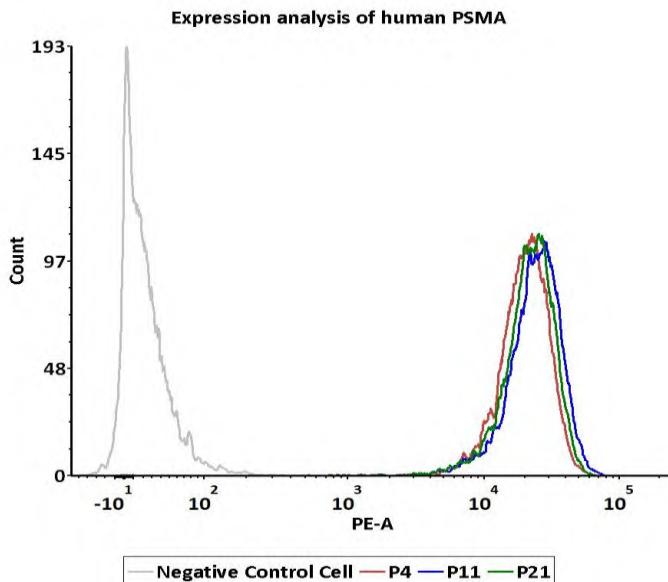


Catalog No.	Stable Cell Line	MFI for PSMA (PE)
NA	Negative Control Cell	11.24
CHEK-ATP185	HEK293/Human PSMA Stable Cell Line	22851.12

Fig1. Expression analysis of human PSMA on HEK293/Human PSMA Stable Cell Line by FACS. Cell surface staining was performed on HEK293/Human PSMA Stable Cell Line or negative control cell using PE anti-human PSMA antibody after fixation with 4% paraformaldehyde.

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• Passage Stability



Passage	MFI for PSMA (PE)
P4	19669.03
P11	23620.55
P21	21495.52

Fig2. Passage stability analysis of receptors expression by FACS. Flow cytometry surface staining of human PSMA on HEK293/Human PSMA Stable Cell Line demonstrates consistent mean fluorescent intensity across passage 4-21.

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• Related Products

<u>Products</u>	<u>Cat. No.</u>
HEK293/Human CD20 Stable Cell Line	CHEK-ATP034
HEK293/Human Claudin-18.2 Stable Cell Line	CHEK-ATP033
HEK293/Human GPRC5D Stable Cell Line	CHEK-STP042
HEK293/Human Nectin-4 Stable Cell Line	CHEK-ATP035
HEK293/Human TROP-2 Stable Cell Line	CHEK-ATP036
HEK293/Human Anti-CD19 Stable Cell Line	CHEK-ATS056
HEK293/Human Transferrin R Stable Cell Line	CHEK-ATP089
HEK293/Human DLL3 Stable Cell Line	CHEK-ATP090
HEK293/Human FOLR1 Stable Cell Line	CHEK-ATP091
HEK293/Human Glypican-3 (GPC3) Stable Cell Line	CHEK-ATP092
CHO/Human DLL3 Stable Cell Line	SCCHO-ATP111
CHO/Human Glypican-3 (GPC3) Stable Cell Line	SCCHO-ATP112
HEK293/Human ROR1 Stable Cell Line	CHEK-ATP084
CHO/Human CEACAM5 Stable Cell Line	SCCHO-ATP081
CHO/Human ROR1 Stable Cell Line	SCCHO-ATP083
HEK293/Human CEACAM5 Stable Cell Line	CHEK-ATP083
HEK293/Human Transferrin Stable Cell Line	CHEK-ATP115
HEK293/Human NAPI-IIb Stable Cell Line	CHEK-ATP116
HEK293/Human Mesothelin Stable Cell Line	CHEK-ATP119
CHO/Human Mesothelin Stable Cell Line	SCCHO-ATP120
CHO/Human STEAP1 Stable Cell Line	SCCHO-ATP121
HEK293/Human ENPP3 Stable Cell Line	CHEK-ATP122
HEK293/Human LRRC15 Stable Cell Line	CHEK-ATP123
HEK293/Human Claudin-1 Stable Cell Line	CHEK-ATP124
HEK293/Human Integrin alpha V beta 6 Stable Cell Line	CHEK-ATP125
HEK293/Human B7-H4 Stable Cell Line	CHEK-ATP126
HEK293/Human Cadherin-6 Stable Cell Line	CHEK-ATP127
CHO/Human GPRC5D Stable Cell Line	CCHO-STP078
HEK293/Human LY6G6D Stable Cell Line	CHEK-ATP137

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• *Related Products*

Products

HEK293/Human Claudin-6 Stable Cell Line

HEK293/Human Claudin-9 Stable Cell Line

HEK293/Human CCR8 Stable Cell Line

CHO/Human c-MET Stable Cell Line

HEK293/Human CD19 Stable Cell Line

CHO/Human uPAR Stable Cell Line

HEK293/Human STEAP1 Stable Cell Line

HEK293/Human c-MET Stable Cell Line

HEK293/Human EGF R Stable Cell Line

HEK293/Human ErbB3 Stable Cell Line

HEK293/Human ErbB2 Stable Cell Line

HEK293/Human uPAR Stable Cell Line

CHO/Human B7-H3 (4Ig) Stable Cell Line

CHO/Human CD79A&CD79B Stable Cell Line

CHO/Human CD79B Stable Cell Line

HEK293/Human Cadherin-17 Stable Cell Line

HEK293/Human EpCAM Stable Cell Line

HEK293/Human TPBG Stable Cell Line

HEK293/Cynomolgus Glycan-3 (GPC3) Stable Cell Line

CHO/Cynomolgus Glycan-3 (GPC3) Stable Cell Line

HEK293/Human GUCY2C Stable Cell Line

HEK293/Human SEZ6 Stable Cell Line

HEK293/Human FAP Stable Cell Line

HEK293/Human PTK7 Stable Cell Line

HEK293/Human MCAM Stable Cell Line

HEK293/Human GPC3 Δ HS Stable Cell Line

HEK293/Human SSTR2 Stable Cell Line

Cat. No.

CHEK-ATP138

CHEK-ATP139

CHEK-ATP140

SCCHO-ATP141

CHEK-ATP003

SCCHO-ATP152

CHEK-ATP154

CHEK-ATP146

CHEK-ATP148

CHEK-ATP149

CHEK-ATP150

CHEK-ATP151

SCCHO-ATP169

SCCHO-ATP170

SCCHO-ATP171

CHEK-ATP173

CHEK-ATP175

CHEK-ATP176

CHEK-ATP177

SCCHO-ATP179

CHEK-ATP182

CHEK-ATP183

CHEK-ATP184

CHEK-ATP186

CHEK-ATP195

CHEK-ATP212

CHEK-ATP213