

HEK293/Human PSMA Stable Cell Line Data Sheet

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 (Gene ID: 2346), 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 (Gibco, Cat.No.11965-092)
- Fetal bovine serum (CellMax, Cat.No.SA211.02)
- Puromycin (InvivoGen, Cat.No.ant-pr-5b)
- 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%PS
- Culture Medium: DMEM + 10% FBS, Puromycin (2 µg/mL), 1%PS
- 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)
- CO₂ Incubator (Thermo, 3111)
- Biological Safety Cabinet (Thermo, 1389)

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• *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 2 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 and spin at approximately 1000 rpm for 5 minutes.
4. Resuspend cell pellet with 5 mL complete growth medium and transfer the cell suspension into 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. Remove and discard culture medium.
2. Wash the cells once with sterile PBS.
3. Add 2 mL of 0.25% trypsin to cell culture flask. Place the flask at 37°C for 2-3 minutes, until 90% of the cells have detached.
4. Add 6.0 to 8.0 mL of culture medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessel.
6. Incubate at 37°C with 5% CO₂ incubator.

Subcultivation Ratio: A subcultivation ratio of 1:6 to 1:10 is recommended.

Medium Renewal: Every 2 to 3 days.

Note: After recovery for 1-2 generations with the complete growth medium not containing the selection marker, if the cell state is well, changing to the culture medium containing the selection marker.

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• *Cryopreservation*

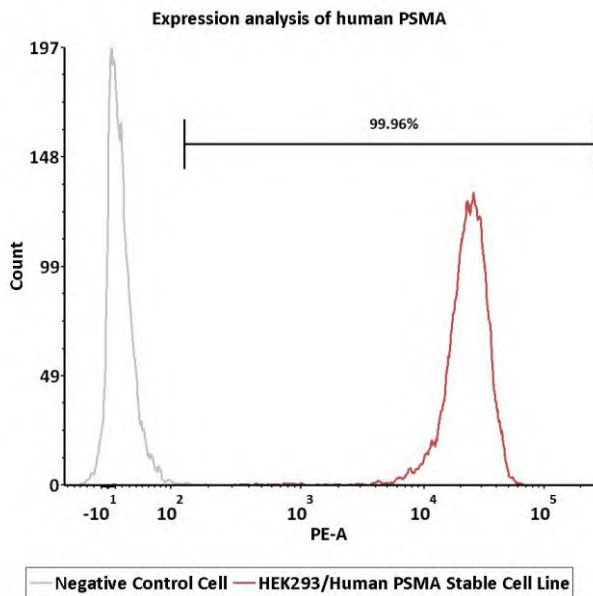
1. Remove and discard spent medium.
2. Detach cells from the cell culture flasks with 0.25% trypsin.
3. Centrifuge at 1000 rpm for 5 min at RT to pellet cells.
4. Resuspend the cell pellets with complete growth medium and count viable cells.
5. Centrifuge at 1000 rpm for 5 min at RT and resuspend cells in freezing medium to a concentration of 5×10^6 to 1×10^7 cells/mL.
6. 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*



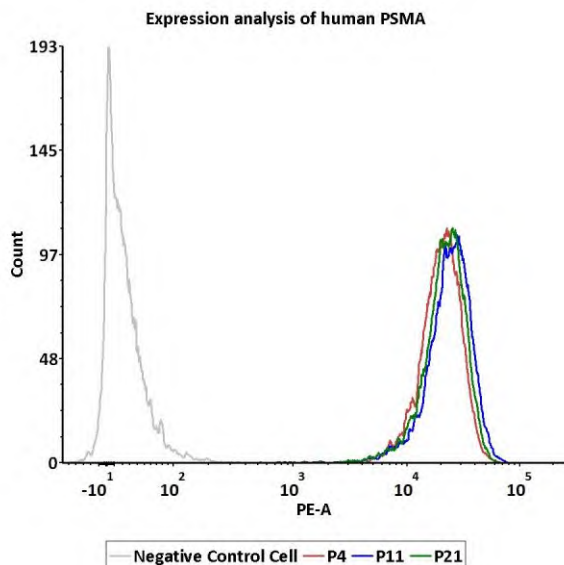
Catalog No.	Stable Cell Line	MFI for PSMA (PE)
NA	Negative Control Cell	11.24
CHEK-ATP185	HEK293/Human PSMA Stable Cell Line	22851.12

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*

Products

Cat.No.

HEK293/Human ROR1 Stable Cell Line	CHEK-ATP084
HEK293/Human Mesothelin Stable Cell Line	CHEK-ATP119
HEK293/Human Glypican-3 (GPC3) Stable Cell Line	CHEK-ATP092
HEK293/Human CEACAM5 Stable Cell Line	CHEK-ATP083
HEK293/Human DLL3 Stable Cell Line	CHEK-ATP090
HEK293/Human FOLR1 Stable Cell Line	CHEK-ATP091