

## HEK293/Human TPBG Stable Cell Line Data Sheet

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# HEK293/Human TPBG Stable Cell Line Data Sheet

## HEK293/Human TPBG Stable Cell Line

| Catalog No. | Size                                           |
|-------------|------------------------------------------------|
| CHEK-ATP176 | 2 × (1 vial contains ~5×10 <sup>6</sup> cells) |

### • *Description*

The HEK293/Human TPBG Stable Cell Line was engineered to express the full length human TPBG (Uniprot: Q13641), used to mimic cancer target cells. Surface expression of human TPBG was confirmed by flow cytometry.

### • *Application*

- Useful for cell-based TPBG binding assay.

### • *Cell Line Profile*

|                        |                                    |
|------------------------|------------------------------------|
| Cell line              | HEK293/Human TPBG 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 <sub>2</sub>       |
| 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% CO<sub>2</sub> 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 70-80% confluency. 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% CO<sub>2</sub> incubator.
7. When the cell culture reaches 70-80% confluency, proceed to the next subculture. Avoid over-confluency, 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 70-80% confluency, 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  $5 \times 10^6$  to  $1 \times 10^7$  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.

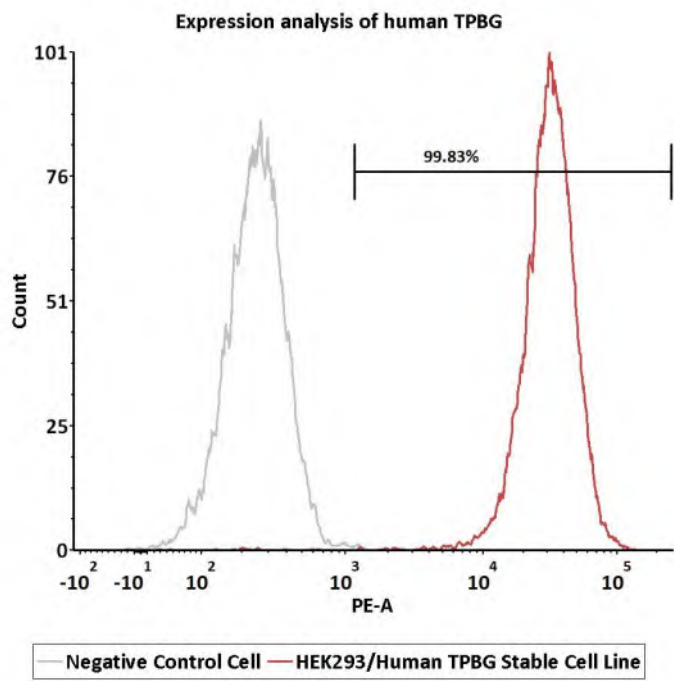
**Note:** It is recommended to establish a cell bank at the earliest possible passage for long-term use.

## • *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 TPBG (PE) |
|-------------|------------------------------------|-------------------|
| NA          | Negative Control Cell              | 244.10            |
| CHEK-ATP176 | HEK293/Human TPBG Stable Cell Line | 30555.58          |

**Fig 1. Expression analysis of human TPBG on HEK293/Human TPBG Stable Cell Line by FACS.** Cell surface staining was performed on HEK293/Human TPBG Stable Cell Line or negative control cell using anti-human TPBG antibody followed by staining with PE anti-human IgG antibody.

# HEK293/Human TPBG Stable Cell Line Data Sheet

## • *Related Products*

| <u>Products</u>                                       | <u>Cat.No.</u> |
|-------------------------------------------------------|----------------|
| HEK293/hClaudin-18.2 Cell Line                        | CHEK-ATP033    |
| HEK293/hGPRC5D Cell Line                              | CHEK-STP042    |
| HEK293/Human TROP-2 Stable Cell Line                  | CHEK-ATP036    |
| HEK293/Human Nectin-4 Stable Cell Line                | CHEK-ATP035    |
| HEK293/Human Anti-CD19 Stable Cell Line               | CHEK-ATS056    |
| CHO/Human GPRC5D Stable Cell Line                     | CCHO-STP078    |
| HEK293/Human CEACAM5 Stable Cell Line                 | CHEK-ATP083    |
| HEK293/Human ROR1 Stable Cell Line                    | CHEK-ATP084    |
| 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 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    |
| HEK293/Human LY6G6D Stable Cell Line                  | CHEK-ATP137    |
| HEK293/Human Claudin-6 Stable Cell Line               | CHEK-ATP138    |
| HEK293/Human Claudin-9 Stable Cell Line               | CHEK-ATP139    |

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## • *Related Products*

| <u>Products</u>                                   | <u>Cat.No.</u> |
|---------------------------------------------------|----------------|
| CHO/Human c-MET Stable Cell Line                  | SCCHO-ATP141   |
| HEK293/Human c-MET Stable Cell Line               | CHEK-ATP146    |
| HEK293/Human EGF R Stable Cell Line               | CHEK-ATP148    |
| HEK293/Human ErbB3 Stable Cell Line               | CHEK-ATP149    |
| HEK293/Human ErbB2 Stable Cell Line               | CHEK-ATP150    |
| HEK293/Human uPAR Stable Cell Line                | CHEK-ATP151    |
| CHO/Human uPAR Stable Cell Line                   | SCCHO-ATP152   |
| HEK293/Human CD19 Stable Cell Line                | CHEK-ATP003    |
| HEK293/Human STEAP1 Stable Cell Line              | CHEK-ATP154    |
| CHO/Human B7-H3 (4Ig) Stable Cell Line            | SCCHO-ATP169   |
| CHO/Human CD79A&CD79B Stable Cell Line            | SCCHO-ATP170   |
| CHO/Human CD79B Stable Cell Line                  | SCCHO-ATP171   |
| HEK293/Human Cadherin-17 Stable Cell Line         | CHEK-ATP173    |
| HEK293/Human EpCAM Stable Cell Line               | CHEK-ATP175    |
| CHO/Cynomolgus Glypican-3 (GPC3) Stable Cell Line | SCCHO-ATP179   |
| HEK293/Human GUCY2C Stable Cell Line              | CHEK-ATP182    |
| HEK293/Human SEZ6 Stable Cell Line                | CHEK-ATP183    |
| HEK293/Human FAP Stable Cell Line                 | CHEK-ATP184    |
| HEK293/Human PSMA Stable Cell Line                | CHEK-ATP185    |
| HEK293/Human PTK7 Stable Cell Line                | CHEK-ATP186    |
| HEK293/Human MCAM Stable Cell Line                | CHEK-ATP195    |
| HEK293/Human GPC3 ΔHS Stable Cell Line            | CHEK-ATP212    |
| HEK293/Human c-MET&ErbB3 Stable Cell Line         | CHEK-ATP217    |
| HEK293/Human BCMA Stable Cell Line                | CHEK-ATP218    |