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# HEK293/Human NGFR Stable Cell Line

Catalog No.	Size
CHEK-ATP157	$2 \times (1 \text{ vial contains } \sim 5 \times 10^6 \text{ cells})$

#### • Description

The HEK293/Human NGFR Stable Cell Line was engineered to express the receptor full length human NGFR (Uniprot: P08138-1). Surface expression of human NGFR was confirmed by flow cytometry.

#### • Application

• Useful for cell-based NGFR binding assay.

#### • Cell Line Profile

Cell line	HEK293/Human NGFR 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	



### • 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)
- 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)
- CO<sub>2</sub> Incubator (Thermo, Model: 3111)
- Biological Safety Cabinet (Thermo, Model: 1389)



#### • 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 80-90% 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 80-90% 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.



#### • Cryopreservation

- 1. When the cell culture reaches 80-90% 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  $5\times10^6$  to  $1\times10^7$  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.

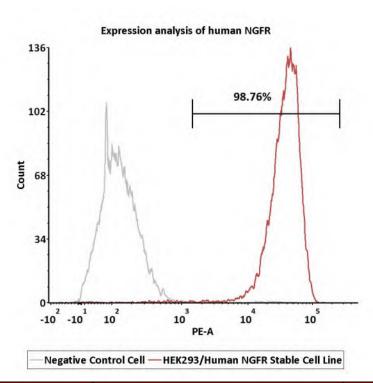
**Note:** It is recommended to establish a cell bank at the earliest possible passage for long-term use.

#### • Storage Condition

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



#### • Receptor Assay



Catalog No.	Stable Cell Line	MFI for NGFR (PE)
NA	Negative Control Cell	121.45
CHEK-ATP157	HEK293/Human NGFR Stable Cell Line	38039.11

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



#### • Related Products

<u>Products</u>	Cat. No.
Human TrkA (Luc) HEK293 Reporter Cell	CHEK-ATF093
HEK293/Human APP (GFP) Stable Cell Line	CHEK-ATP081
HEK293/Human TrkB Stable Cell Line	CHEK-ATP082
HEK293/Human Alpha-synuclein (GFP) Stable Cell Line	CHEK-ATP085
HEK293/Human Tau-K18 (GFP) Stable Cell Line	CHEK-ATP087
Human 5-HT1A (Luc) HEK293 Reporter Cell	CHEK-ATF131
HEK293/Human SORT1 Stable Cell Line	CHEK-ATP155
HEK293/Human RAGE Stable Cell Line	CHEK-ATP156
HEK293/Human LDL R Stable Cell Line	CHEK-ATP158
HEK293/Human LILRB3 Stable Cell Line	CHEK-ATP159
HEK293/Human TrkC Stable Cell Line	CHEK-ATP189
HEK293/Human TrkA Stable Cell Line	CHEK-ATP192