CHO/Human BTLA Stable Cell Line Development Service Data Sheet

CHO/Human BTLA Stable Cell Line

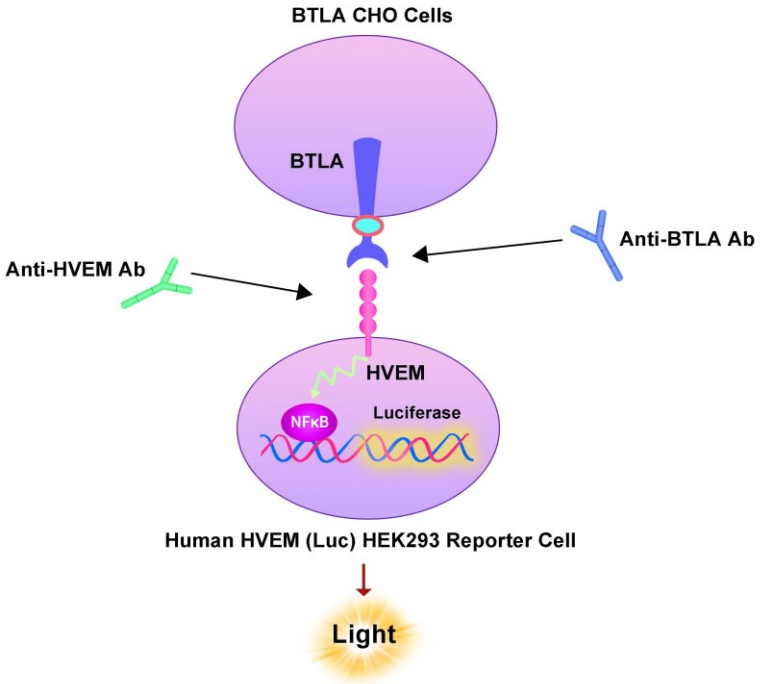
Catalog No.	Size
SCCHO-ATP110	2 × (1 vial contains ~5×10^6 cells)

• *Description*

The CHO/Human BTLA Stable Cell Line was engineered to express the receptor full length human BTLA (Gene ID: 151888), used to mimic cancer target cells. When co-cultured with human HVEM Reporter Cell, the BTLA/HVEM interaction drives NF-kB-mediated luminescence. Blocking the BTLA/HVEM interaction by either anti-BTLA or anti-HVEM antibodies results in a decrease in luminescence.

• *Application*

- Useful for cell-based BTLA binding assay
- Useful as BTLA-expressing target cells in reporter gene assay



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• *Cell Line Profile*

Cell line	CHO/Human BTLA Stable Cell Line
Host Cell	CHO
Property	Adherent
Complete Growth Medium	F-12K + 10% FBS
Selection Marker	Puromycin (2 μg/mL)
Incubation	37℃ with 5% CO_2
Doubling Time	22-24 hours
Transduction Technique	Lentivirus

• *Materials Required for Cell Culture*

- F-12K Nutrient Mixture (Gibco, Cat.No.21127-022)
- Fetal bovine serum (CellMax, Cat.No.SA211.02)
- Puromycin (InvivoGen, Cat.No.ant-pr-5b)
- Complete Growth Medium: F-12K + 10% FBS
- Culture Medium: F-12K + 10% FBS, Puromycin (2 μg/mL)
- 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)
- CO_2 Incubator (Thermo, 3111)
- Biological Safety Cabinet (Thermo, 1389)

• *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% CO_2 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 3 mL of 0.25% trypsin to cell culture flask. Place the flask at 37°C for 5-7 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% CO_2 incubator.

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

Medium Renewal: Every 2 to 3 days.

• *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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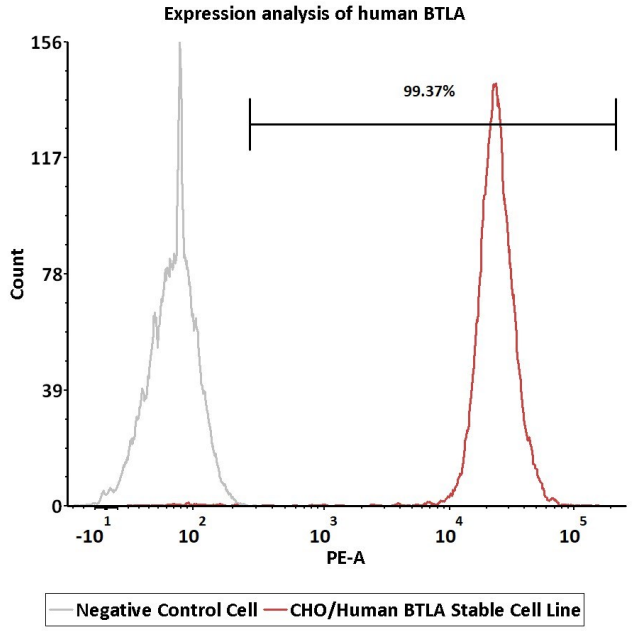
- ***Receptor Assay***

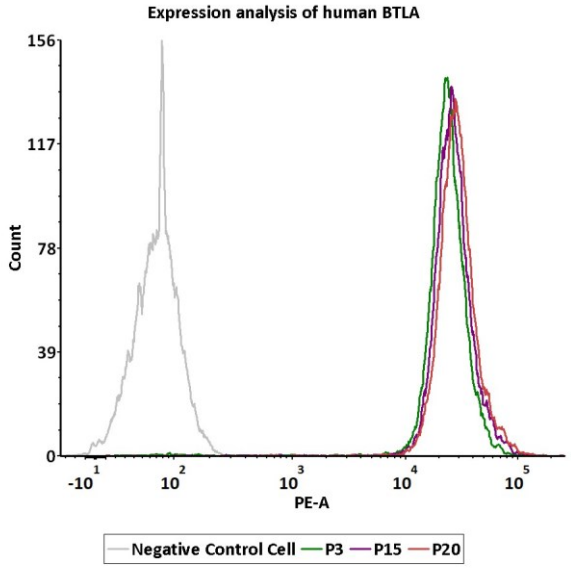


Catalog No.	Stable Cell Line	MFI for BTLA (PE)
NA	Negative Control Cell	69.15
SCCHO-ATP112	CHO/Human BTLA Stable Cell Line	22651.27

Fig1. Expression analysis of human BTLA on CHO/Human BTLA Stable Cell Line by FACS. Cell surface staining was performed on CHO/Human BTLA Stable Cell Line or negative control cell using PE-labeled anti-human BTLA antibody.

CHO/Human BTLA Stable Cell Line Development Service Data Sheet

- ***Passage Stability***



Passage	MFI for BTLA (PE)
P3	22736.58
P15	25162.54
P20	27260.96

Fig3. Passage stability analysis of receptor expression by FACS. Flow cytometry surface staining of human BTLA on CHO/Human BTLA Stable Cell Line demonstrates consistent mean fluorescent intensity across passage 3-20.

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• *Related Products*

Products	Cat.No.
Human HVEM (Luc) HEK293 Reporter Cell	CHEK-ATF105
Human BTLA (Luc) Jurkat Reporter Cell Development Service	SCJUR-STF106