CHO/Human LIGHT Stable Cell Line Development Service Data Sheet

CHO/Human LIGHT Stable Cell Line

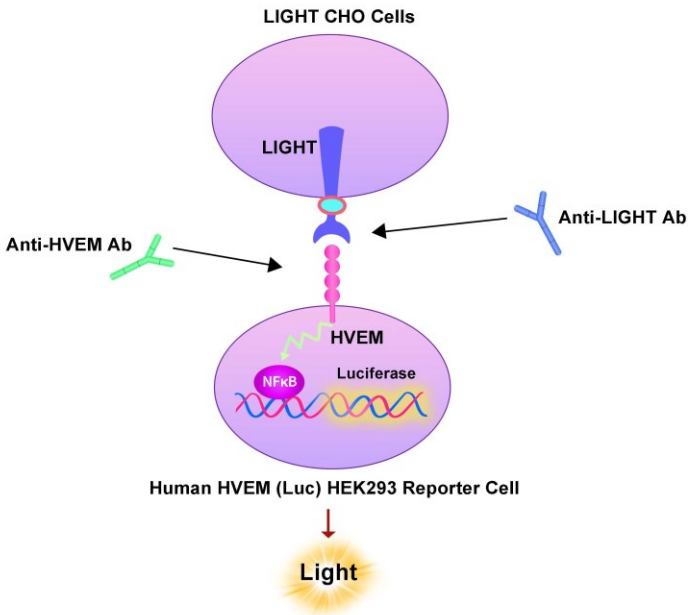
Catalog No.	Size
SCCHO-ATP109	2 × (1 vial contains ~5×10^6 cells)

• *Description*

The CHO/Human LIGHT Stable Cell Line was engineered to express full length human LIGHT (Gene ID: 8740). Surface expression of human LIGHT was confirmed by flow cytometry.

• *Application*

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



• *Cell Line Profile*

Cell line	CHO/Human LIGHT Stable Cell Line
Host Cell	CHO
Property	Adherent
Complete Growth Medium	F-12K + 10% FBS
Selection Marker	Puromycin (2 μg/mL)
Incubation	37°C with 5% CO_2
Doubling Time	16-20 hours
Transduction Technique	Lentivirus

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• *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℃ with 5% CO2 incubator until the cells are ready to be split.

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• *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℃ with 5% CO2 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 culture 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*

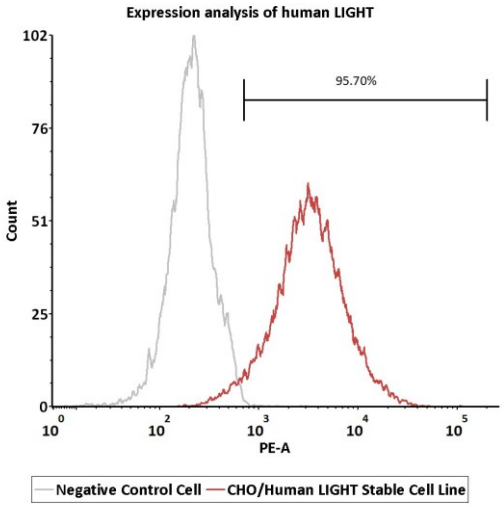

Fig1. Expression analysis of human LIGHT on CHO/Human LIGHT Stable Cell Line by FACS. CHO/Human LIGHT Stable Cell Line or negative control cell were stained with PE-labeled anti-Human LIGHT

• *Signaling Bioassay*

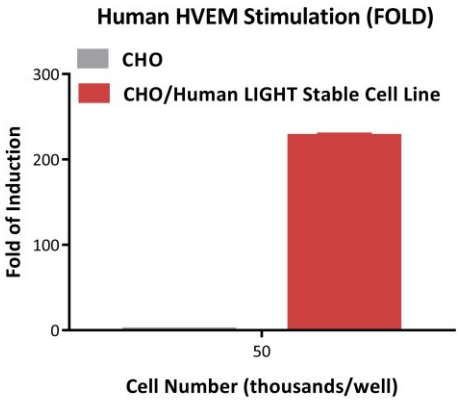

Fig2. Response to human HVEM (FOLD). This cell was incubated with Human HVEM (Luc) HEK293 Reporter Cell (Cat.No.CHEK-ATF105). The human LIGHT overexpressing on CHO cells can activate HVEM signaling with the max induction fold 227.59.

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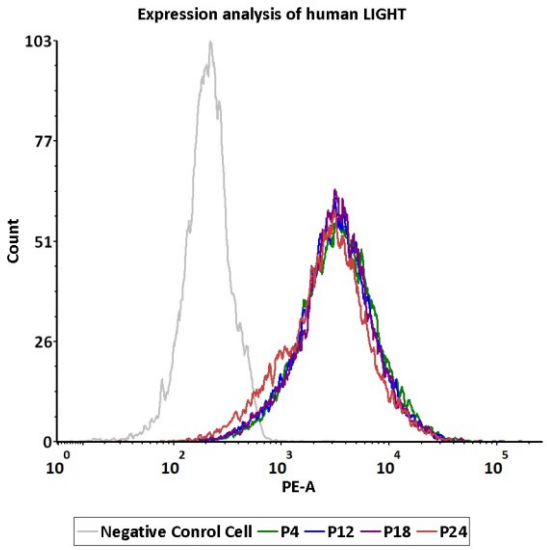
• *Passage Stability*



Passage	MFI for LIGHT (PE)
P4	3319.75
P12	3135.17
P18	3187.35
P24	2707.29

Fig3. Passage stability analysis of receptor expression by FACS. Flow cytometry surface staining of human LIGHT on CHO/Human LIGHT Stable Cell Line demonstrates consistent mean fluorescent intensity across passage 4-24.

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• *License Disclosure*

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• *Related Products*

Products	Cat.No.
Human HVEM (Luc) HEK293 Reporter Cell	CHEK-ATF105
Raji/Human HVEM Stable Cell Line Development Service	SCRAJ-STF108
Human BTLA (Luc) Jurkat Reporter Cell Development Service	SCJUR-STF106