

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

➤ **LIMITED USE AND LICENSE STATEMENT**

HEK293 Cell Line Products

By using any HEK293 cell line product purchased from ACRO Biosystems or its affiliates (collectively, "ACROBiosystems"), including the original 293 cells and any modified derivatives thereof (collectively, the "Product"), you (the "Customer") agree to be bound by the following terms of limited use. If you are not willing to accept these terms and the Product remains unused, please contact our customer service at customerservice@acrobiosystems.com to arrange for return of the unused Product for a refund.

1. Scope of Use

- For the use of the Product **worldwide** (excluding Mainland China, Hong Kong, Macao and Taiwan regions), **Customer may use the Product for (i) internal research; (ii) drug discovery and assay development; (iii) internal quality assurance testing for biologic drugs and vaccines; and (iv) lot releasing assay for biologic drugs and vaccines, whether conducted by a commercial or non-commercial entity.** Unless a separate sublicense has been obtained, it is **NOT** permitted to use the Product in (i) product manufacturing; (ii) provision of service, information, or data to an unaffiliated third party for a fee; (iii) resale of the Product or its derivatives, whether or not such Product or derivatives are resold for use in research or (iv) other commercial use not expressly permitted above.
- For the use of the Product in **Greater China region** (including Mainland China, Hong Kong, Macao and Taiwan regions), **Customer may use the Product for internal research use only.** Unless a separate sublicense has been obtained, it is **NOT** permitted to use the Product for any Commercial Use. For the purpose of this paragraph, "Commercial Use" means any and all uses of this product and derivatives by a party for profit or other consideration and may include but is not limited to use in: (i) product manufacture; (ii) provision of service, information or data to a third party for a fee; (iii) resale of the product or its derivatives, whether or not such Product or derivatives are resold for use in research; (iv) quality assurance testing for biologic drugs and vaccines; (v) quality control assays; (vi) lot releasing assay of biologic drugs and vaccines.
- If you require a sublicense for any use beyond the limited use permitted herein, including but not limited to commercial use, CRO/service provider activities for a fee, or any product manufacturing activities, please contact the local sales team of ACROBiosystems for further details.
- The Product is not intended for any animal or human therapeutic purposes, nor for any direct human in vivo use. The Product shall not be used in or administered to humans.

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

➤ **LIMITED USE AND LICENSE STATEMENT**

2. Transfer, Distribution and Sublicensing Restrictions

Unless expressly permitted under a separate written agreement with/via ACROBiosystems, you have **NO** right to (i) share, transfer, distribute, sell, resell, sublicense, or otherwise make the Product or its derivatives available for use to any third party, including but not limited to other researchers, laboratories, departments, research institutions, hospitals, universities, contract research organizations (CROs), contract development and manufacturing organizations (CDMOs), or any other commercial entities; or (ii) use the Product or its derivatives to perform fee-for-service activities or to provide services, information, or data to any third party for monetary or other consideration.

3. Modification and Derivatives

Customers have **No** right to modify, engineer, genetically alter, or create derivatives of the Product. Any such modification or derivative requires a separate license and additional fees. Please contact our local sales team for further details.

4. No Warranty

ACROBiosystems makes no warranties or representations of any kind, either expressed or implied, with respect to the merchantability, fitness or suitability of the Product for any particular purpose.

5. Limitation of Liability

To the fullest extent permitted by law, in no event shall ACROBiosystems or its licensors be liable for any use by Customer of the Product, any derivative thereof, or any material treated therewith for any losses, costs, claims, damages, or liability of whatsoever kind or nature which may arise from or in connection with the use of the Product.

6. Compliance with Laws

Customer agrees to use the Product in compliance with all applicable laws, regulations, and governmental guidelines applicable to the Product, any derivative thereof, and any materials treated therewith.

ACKNOWLEDGMENT

By using this Product, Customer acknowledges that he/she has read, understood, and agreed to be bound by the terms and conditions of this Limited Use and License Statement. If Customer does not agree to comply with these terms, Customer shall not open or use the Product and shall contact ACROBiosystems to arrange for return of the unused Product.

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell

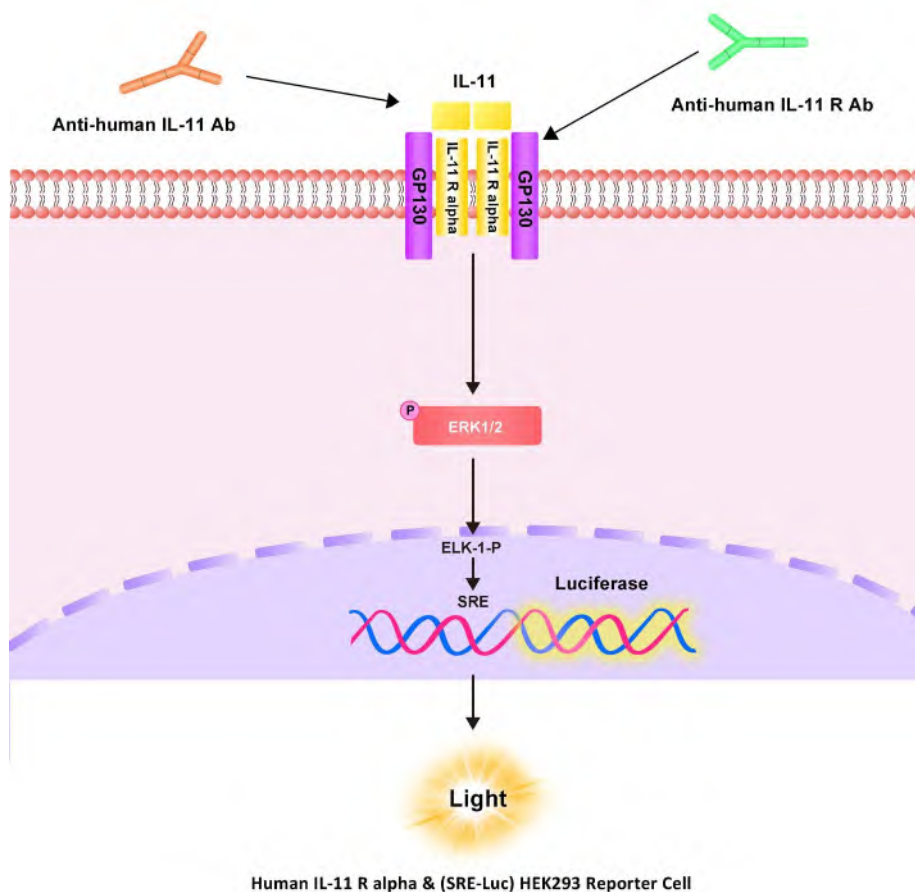
Catalog No.	Size
CHEK-ATF362	2 × (1 vial contains ~5×10 ⁶ cells)

• Description

The Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell was engineered to not only express SRE signaling response element, but also express the receptors human IL-11 R alpha (Uniprot: Q14626-1) and gp130 (Uniprot: P40189-1). When stimulated with human IL-11 protein, receptor-mediated signaling can drive SRE-mediated luminescence. Inhibition of biological effect of the ligand-receptor interaction by corresponding antibody results in a decrease in luminescence.

• Application

- Screen for neutralizing antibodies blocking the stimulation of human IL-11 protein.



Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

• Cell Line Profile

Cell line	Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell
Host Cell	HEK293
Property	Adherent
Complete Growth Medium	DMEM + 10% FBS
Selection Marker	Puromycin (2 µg/mL) + Hygromycin B (20 µg/mL) + Zeocin (20 µg/mL)
Incubation	37°C with 5% CO ₂
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), 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)
- Hygromycin B (Invitrogen, Cat. No. 10687010)
- Zeocin (Invitrogen, Cat. No. R25001)

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 mg/mL), Hygromycin B (20 mg/mL), Zeocin (20 µg/mL), 1%P/S
- 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 (Cence, Model: L550)
- Cell counter (MONWEI, Model: SmartCell200A Plus)
- CO₂ Incubator (Thermo, Model: 3111)
- Biological Safety Cabinet (Thermo, Model: 1389)

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

• *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% CO₂ 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% CO₂ 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.

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

• *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 5×10^6 to 1×10^7 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.

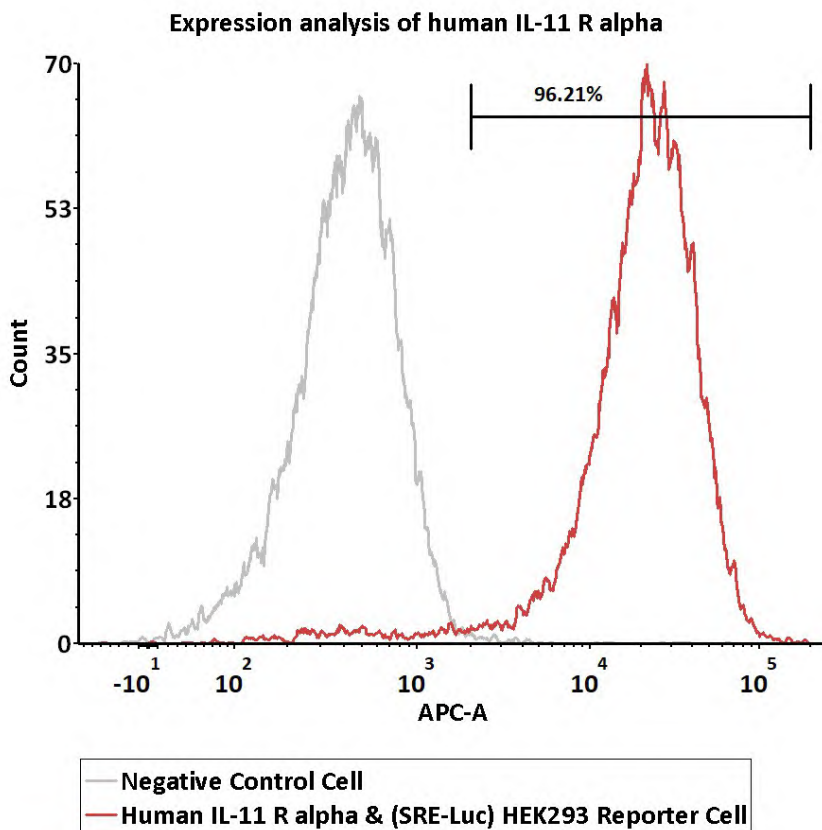
Note: It is recommended to establish a cell bank at the earliest possible passage for long-term use.

• *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.

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

• Receptor Assay



Catalog No.	Stable Cell Line	MFI for IL-11 R alpha (APC)
NA	Negative Control Cell	411.92
CHEK-ATF362	Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell	21091.73

Fig1. Expression analysis of human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell by FACS. Cell surface staining was performed on Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell or negative control cell using anti-human IL-11 R alpha Antibody followed by staining with APC anti-human IgG Fc Antibody.

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

• Signaling Bioassay

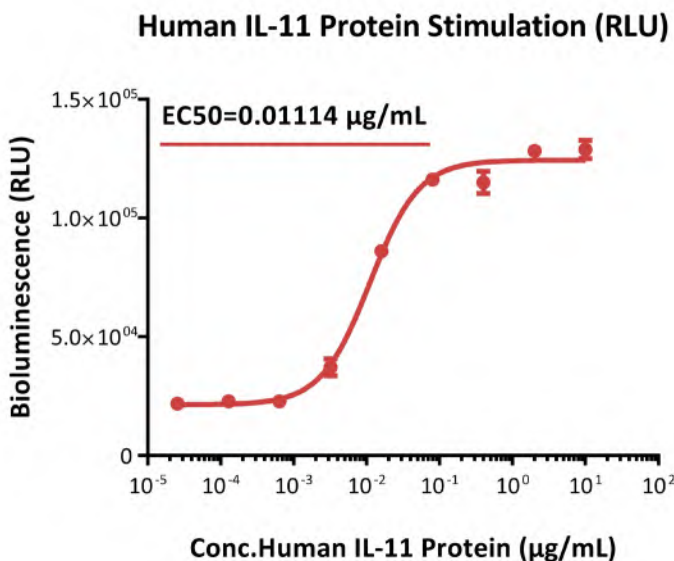


Fig2. Response to human IL-11 protein (RLU). The Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell was stimulated with serial dilutions of human IL-11 protein (Cat. No. IL1-H5243). The EC₅₀ was approximately 0.01114 µg/mL.

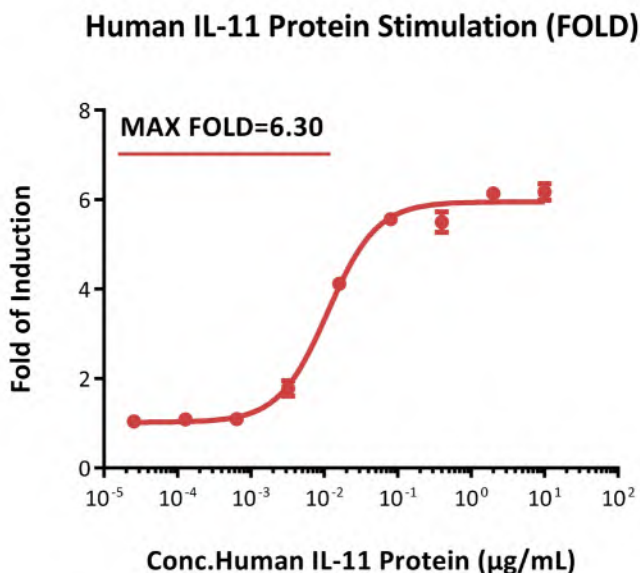


Fig3. Response to human IL-11 protein (FOLD). The Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell was stimulated with serial dilutions of human IL-11 protein (Cat. No. IL1-H5243). The max induction fold was approximately 6.30.

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

• Application

Anti-human IL-11 Neutralizing Antibody Screening

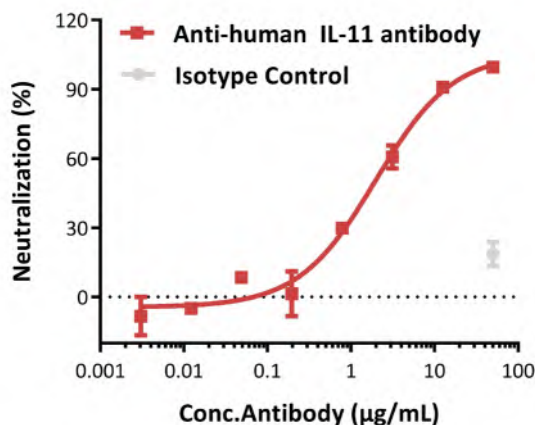


Fig4. Inhibition of human IL-11 protein-induced reporter activity by anti-human IL-11 neutralizing antibody. This reporter cell was incubated with serial dilutions of IL-11 neutralizing antibody in the presence of human IL-11 protein (Cat. No. IL1-H5243) with a final concentration of 0.02 µg/mL. The EC₅₀ of IL-11 neutralizing antibody is approximately 1.986 µg/mL.

Anti-human IL-11 R alpha Neutralizing Antibody Screening

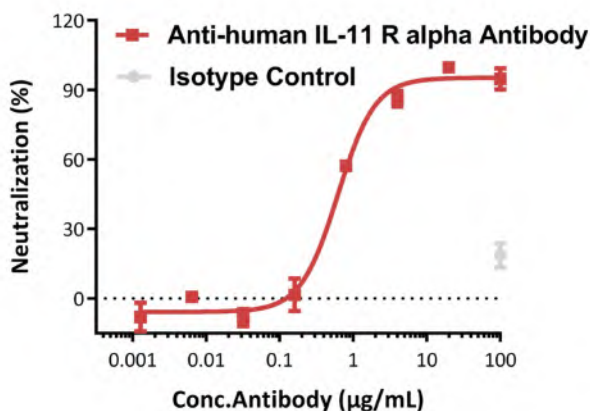
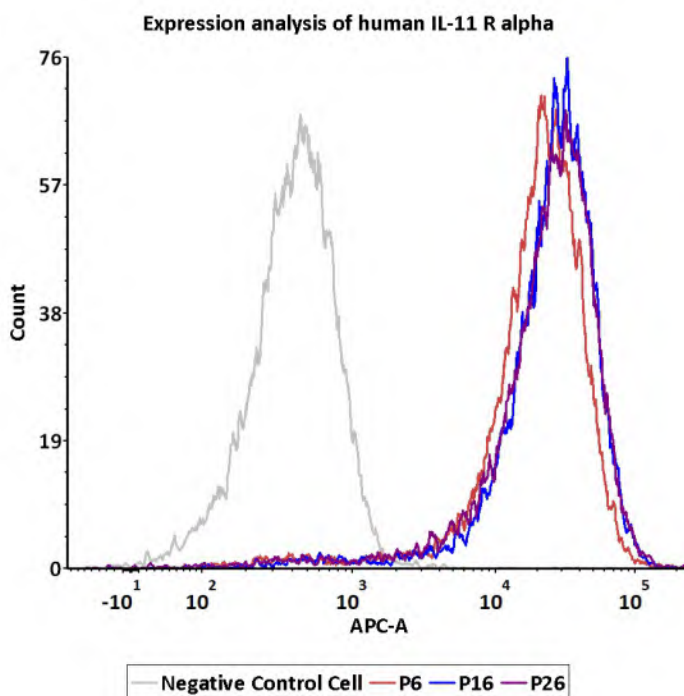


Fig5. Inhibition of human IL-11 protein-induced reporter activity by anti-human IL-11 R alpha neutralizing antibody. This reporter cell was incubated with serial dilutions of IL-11 R alpha neutralizing antibody in the presence of human IL-11 protein (Cat. No. IL1-H5243) with a final concentration of 0.02 µg/mL. The EC₅₀ of IL-11 R alpha neutralizing antibody is approximately 0.6171 µg/mL.

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

• Passage Stability

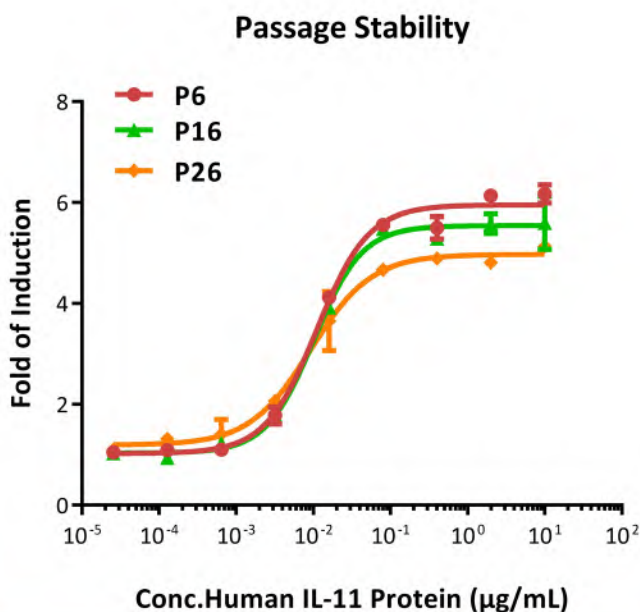


Passage	MFI for IL-11 R alpha (APC)
P6	21096.21
P16	26566.15
P26	25685.58

Fig6. Passage stability analysis of receptor expression by FACS. Flow cytometry surface staining of Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell demonstrates consistent mean fluorescent intensity across passage 6-26.

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

• Passage Stability



	P6	P16	P26
EC50 (µg/mL)	0.01114	0.01021	0.009187
Max Fold	6.17	5.6	5.13

Fig7. Passage stability analysis by Signaling Bioassay. The continuously growing Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell was stimulated with serial dilutions of human IL-11 protein (Cat. No. IL1-H5243). Human IL-11 Protein stimulated response demonstrates passage stabilization (fold induction and EC50) across passage 6-26.

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

• *Related Products*

<u>Products</u>	<u>Cat. No.</u>
HEK293/Human CD40 Ligand / TNFSF5 Stable Cell Line	CHEK-ATP041
Human TSLP R (Luc) HEK293 Reporter Cell	CHEK-ATF045
STAT3 (Luc) HEK293 Reporter Cell	CHEK-ATF047
Human IL-21 R (Luc) HEK293 Reporter Cell	CHEK-ATF051
Human IL-11 R alpha (Luc) HEK293 Reporter Cell	CHEK-ATF052
HEK293/Human OX40 / TNFRSF4 / CD134 Stable Cell Line	CHEK-ATP053
HEK293/Human OX40 Ligand / TNFSF4 Stable Cell Line	CHEK-ATP054
Human IL-5 R alpha/CD131 (Luc) HEK293 Reporter Cell	CHEK-ATF074
Human IL-4 R alpha/IL-13 R alpha 1 (Luc) HEK293 Reporter Cell	CHEK-ATF075
HEK293/FcRn (FCGRT & B2M) Cell Line	CHEK-ATP079
CHO/Human TSHR Stable Cell Line	SCCHO-ATP085
HEK293/Human TSHR Stable Cell Line	CHEK-ATP086
Human IL-31 RA/OSMR (Luc) HEK293 Reporter Cell	CHEK-ATF094
Human IL-10 R alpha/IL-10 R beta (Luc) HEK293 Reporter Cell	CHEK-ATF095
Human CD40 (Luc) HEK293 Reporter Cell	CHEK-ATF097
Human IL-7 R alpha/CD132 (Luc) HEK293 Reporter Cell	CHEK-ATF099
NIH-3T3/Human IGF-1 R Stable Cell Line Development Service	CNIH-ATP102
Human HVEM (Luc) HEK293 Reporter Cell	CHEK-ATF105
Human BTLA (Luc) Jurkat Reporter Cell	SCJUR-STF106
Human IGF-1 R (Luc) HEK293 Reporter Cell	CHEK-ATF107
Human GLP-2R (Luc) HEK293 Reporter Cell	CHEK-ATF128
Human RANK (Luc) HEK293 Reporter Cell	CHEK-ATF129
HEK293/FcRn (FCGRT & B2M), GFP Tag Stable Cell Line	CHEK-ATP132
Human IL-17 RA/IL-17 RC (Luc) HEK293 Reporter Cell	CHEK-ATF133
Human OX40 (Luc) HEK293 Reporter Cell	CHEK-ATF135

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

Products

Cat. No.

Human IL-2 R beta/IL-2 R gamma (Luc) HEK293 Reporter Cell	CHEK-ATF136
HEK293/Human TL1A Stable Cell Line	CHEK-ATP142
Human IL-23 R/IL-12 R beta 1(Luc) HEK293 Reporter Cell	CHEK-ATF166
Human IL-22 R alpha 1/IL-10 R beta (Luc) HEK293 Reporter Cell	CHEK-ATF167
Human DR3 (TL1A receptor) (Luc) Jurkat Reporter Cell	SCJUR-STF178
Human TSHR (Luc) HEK293 Reporter Cell	CHEK-ATF187
CHO/Mouse FCGRT-P2A-mGFP&B2M Stable Cell Line	SCCHO-ATP193
Human PTH1R (Luc) HEK293 Reporter Cell	CHEK-ATF194
MDCK/Mouse FCGRT-P2A-mGFP&B2M Stable Cell Line Development Service	SCMDC-ATP196
Human TACI (Luc) HEK293 Reporter Cell	CHEK-ATF197
HEK293/Membrane-Bound Human TL1A Stable Cell Line	CHEK-ATP198
Human IL-2 R alpha & IL-2 R beta & IL-2 R gamma (Luc) HEK293 Reporter Cell	CHEK-ATF201
Human IL-1 R1 & IL-1 RAcP (Luc) HEK293 Reporter Cell	CHEK-ATF202
Raji/Membrane-Bound Human TL1A Stable Cell Line	SCRAJ-STT204
HEK293/Human MRGPRX2 Stable Cell Line	CHEK-ATP214
CHO/Human MRGPRX2 Stable Cell Line	SCCHO-ATP215
Human TPO R (Luc) HEK293 Reporter Cell	CHEK-ATF226
CHO/Human CD89 Stable Cell Line	SCCHO-ATP225
Raji/Human TL1A Stable Cell Line	CRAJ-STP232
Human IL-18 R1/IL-18 R beta (Luc) HEK293 Reporter Cell	CHEK-ATF233
Human IL-17 RA/IL-17 RB (Luc) HEK293 Reporter Cell	CHEK-ATF239
CHO/Human MAdCAM-1 Stable Cell Line	CCHO-ATP241
HEK293/Human Integrin alpha 4 beta 7 (ITGA4&ITGB7) Stable Cell Line	CHEK-ATP243
Human IL-1RL1 & IL-1 RAcP (IL-33 receptor) (Luc) HEK293 Reporter Cell	CHEK-ATF244

Human IL-11 R alpha & (SRE-Luc) HEK293 Reporter Cell Data Sheet

Products

Cat. No.

Jurkat/Human Transmembrane TNF-alpha (mTNF) Stable Cell Line	CJUR-STF248
CHO/Human CXCR3 Stable Cell Line	CCHO-ATP252
HEK293/Human CXCR3 Stable Cell Line	CHEK-ATP253
Human Glucocorticoid Receptor (Luc) HEK293 Reporter Cell	CHEK-ATF264
Human PD-1 & IL-2 R alpha & IL-2 R beta & IL-2 R gamma (Luc) HEK293 Reporter Cell	CHEK-ATF265
Human OSMR & gp130 (OSM receptor) (Luc) HEK293 Reporter Cell	CHEK-ATF311
Human BCMA (Luc) HEK293 Reporter Cell	CHEK-ATF296
Human BCMA (Luc) Jurkat Reporter Cell	CJUR-STF295
Jurkat/Human TRBV9 & Luc Stable Cell Line	CJUR-STP292
Jurkat/Human TRBV9 Stable Cell Line	CJUR-STP293
Raji/Luc & Human CD19 & CD20 Double Knockout Stable Cell Line	CRAJ-STK284
Raji/Luc & Human CD20 Knockout Stable Cell Line	CRAJ-STK285
Raji/Luc & Human CD19 Knockout Stable Cell Line	CRAJ-STK286
HEK293/Membrane-Bound cynomolgus TL1A Stable Cell Line	CHEK-ATP310
CHO/Human MS4A2 & FCER1G & FCER1A Stable Cell Line	CCHO-ATP312