Genomeditech (Shanghai) Co.,Ltd.
Order: +86 021-68455258/50432826/50432825
Toll-free: +86 400 627 9288
Email: service@genomeditech.com

# Product Sheet

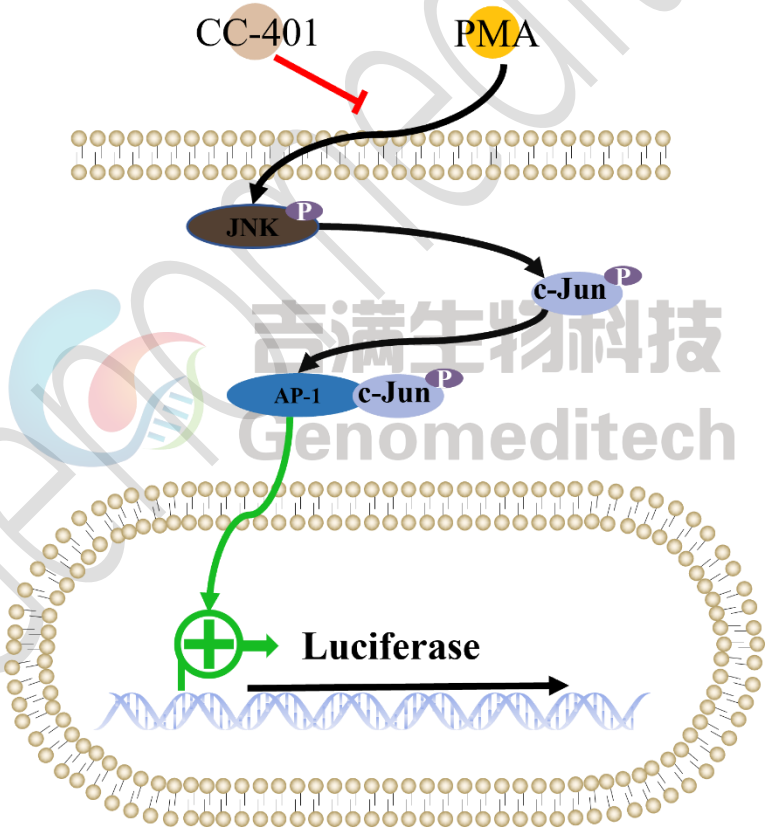
## AP1 Reporter Jurkat Cell Line

Catalog number: GM-C17011

Version 3.3.1.251031

AP1 (Activator Protein-1) is a key transcription factor complex mainly composed of c-Jun and c-Fos family proteins, involved in cell proliferation, differentiation, apoptosis, and stress responses. The SAPK/JNK (Stress-Activated Protein Kinase/c-Jun N-terminal Kinase) pathway can be activated by stress, inflammation, and UV light. SAPK/JNK enhances AP1 activity by phosphorylating c-Jun, promoting dimer formation and increasing its binding to gene promoters. Activators like PMA (Phorbol 12-myristate 13-acetate) boost AP1-mediated luciferase expression, while inhibitors such as CC-401 suppress AP1 activity and lower luciferase signals.

AP1 Reporter Jurkat Cell Line is a clonal stable Jurkat cell line expressing a firefly luciferase under the control of the AP1 response elements. The AP-1 activator PMA can significantly enhance AP-1-mediated luciferase expression and can be used to screen for compounds related to AP-1 pathway regulation.



Genomeditech (Shanghai) Co.,Ltd.
Order: +86 021-68455258/50432826/50432825
Toll-free: +86 400 627 9288
Email: service@genomeditech.com

## Specifications

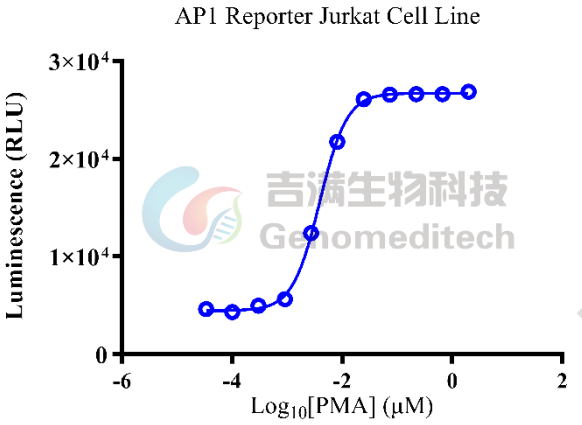
| | |
|---|---|
| **Quantity** | 5E6 Cells per vial,1 mL |
| **Product Format** | 1 vial of frozen cells |
| **Shipping** | Shipped on dry ice |
| **Storage Conditions** | Liquid nitrogen immediately upon receipt |
| **Recovery Medium** | RPMI 1640+10% FBS+1% P.S |
| **Growth medium** | RPMI 1640+10% FBS+1% P.S+0.75 μg/mL Puromycin |
| **Note** | None |
| **Freezing Medium** | 90% FBS+10% DMSO |
| **Growth properties** | Suspension |
| **Growth Conditions** | 37°C, 5% $CO_2$ |
| **Mycoplasma Testing** | The cell line has been screened to confirm the absence of Mycoplasma species. |
| **Safety considerations** | Biosafety Level 2 |
| **Note** | It is recommended to expand the cell culture and store a minimum of 10 vials at an early passage for potential future use. |

## Materials

| Reagent | Manufacturer/Catalogue No. |
|---|---|
| RPMI 1640 | gibco/C11875500BT |
| Fetal Bovine Serum | ExCell/FSP500 |
| Pen/Strep | Thermo/15140-122 |
| Phorbol 12-myristate 13-acetate(PMA) | MCE/HY-18739 |
| CC-401 | MCE/HY-13022A |
| Raji Cell Line | Genomeditech/GM-C19100 |
| Anti-CD3×CD20 hIgG1 Bispecific Antibody (Epcobio) | Genomeditech/GM-88130MAB |
| GMOne-Step 2.0 Luciferase Reporter Gene Assay Kit | Genomeditech/GM-040513 |

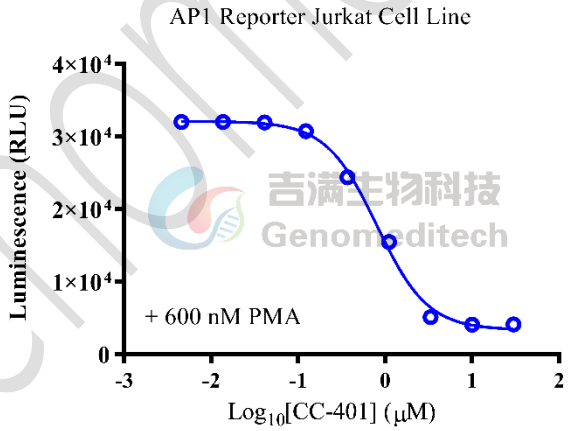
Genomeditech (Shanghai) Co.,Ltd.
Order: +86 021-68455258/50432826/50432825
Toll-free: +86 400 627 9288
Email: service@genomeditech.com

## Figures




| | AP1 Reporter Jurkat Cell Line |
|---|---|
| EC50 | 0.003935 |

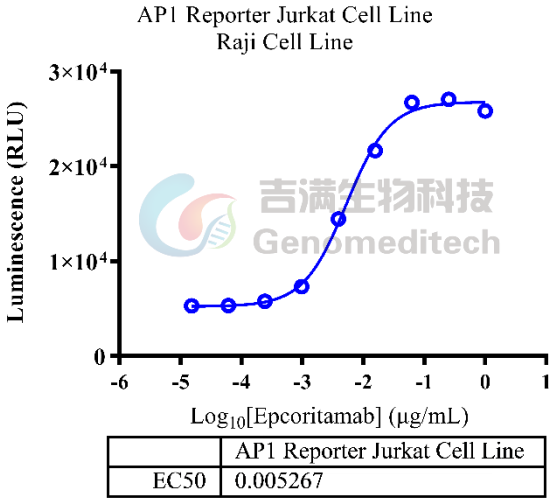
Figure 1 | Response to PMA. The AP1 Reporter Jurkat Cell Line (Cat. GM-C17011) at a concentration of 1E5 cells/well (96-well format) was stimulated with serial dilutions of Phorbol 12-myristate 13-acetate(PMA) (MCE/HY-18739) in assay buffer (RPMI 1640 + 1% FBS + 1% P.S) for 6 hours. The firefly luciferase activity was measured using the Luciferase Reporter Assay Kit (Genomeditech). The maximum induction fold was approximately [6.4]. Data are shown by drug molar concentration.




| | AP1 Reporter Jurkat Cell Line |
|---|---|
| IC50 | 0.8066 |

Figure 2 | Response to CC-401. Serial dilutions of the CC-401 (MCE/HY-13022A) was incubated with 1E5 cells/well of the AP1 Reporter Jurkat Cell Line (Cat. GM-C17011) in a 96-well plate for 1 hour in assay buffer (RPMI 1640+1% FBS+1% P.S). Subsequently, the PMA (MCE/HY-18739) at a concentration of 12.2 ng/well was added, and the coculture proceeded for an additional 16 hours. Firefly luciferase activity was then measured using the Luciferase Reporter Assay Kit (Genomeditech). The results indicated maximum blocking folds of approximately [8.0]. Data are shown by drug molar concentration.

Genomeditech (Shanghai) Co.,Ltd.
Order: +86 021-68455258/50432826/50432825
Toll-free: +86 400 627 9288
Email: service@genomeditech.com




| | AP1 Reporter Jurkat Cell Line |
|---|---|
| EC50 | 0.005267 |

Figure 3 | Response to Epcoritamab. Serial dilutions of Anti-CD3×CD20 hIgG1 Bispecific Antibody (Epcobio) (Cat. GM-88130MAB) was prepared. For each condition, 1E5 cells/well of the AP1 Reporter Jurkat Cell Line (Cat. GM-C17011) were added to 2E4 cells/well of Raji target cells, together with the antibody dilutions, followed by 16 hours of incubation. Firefly luciferase activity was then measured using the Luciferase Reporter Assay Kit (Genomeditech). Epcoritamab maximum induction fold was approximately[4.9]. Data are shown by drug concentration.

## Cell Recovery

Recovery Medium: RPMI 1640+10% FBS+1% P.S

To insure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.

a) Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 - 3 minutes).

b) Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions.

c) Transfer the vial contents to a centrifuge tube containing 5.0 mL complete culture medium. And spin at approximately 176 x g for 5 minutes. Discard supernatant.

d) Resuspend cell pellet with the recommended complete medium. And dispense the suspension into 1 - 2 T-25 culture flasks.

e) Incubate the culture at 37°C in a suitable incubator. A 5% $CO_2$ in air atmosphere is recommended if using the medium described on this product sheet.

## Cell Freezing

Freezing Medium: 90% FBS+10% DMSO

a) Centrifuge at 176 x g for 3 minutes to collect cells.

b) Resuspend the cells in pre-cooled freezing medium and adjust the cell density to 5E6 cells/mL.

c) Aliquot 1 mL into each vial.

d) Place the vial in a controlled-rate freezing container and store at -80°C for at least 1 day, then transfer to liquid nitrogen as soon as possible.

## Cell passage

Growth medium: RPMI 1640+10% FBS+1% P.S+0.75 μg/mL Puromycin

Approximately 48-72 hours after the initial thawing, the cells can be passaged for the first time. After this initial passage, the culture medium can be adjusted to growth medium supplemented with antibiotics. If cells are not passaged within 48 hours, it is recommended to add some fresh recovery medium and place the flask horizontally.

a) When the cell density reaches 1.5 - 2E6 cells/mL, subculture the cells. Do not allow the cell density to exceed 2E6 cells/mL.

b) It is recommended to use T-25 flasks for subculturing.

c) These cells are suspension cells, and it is recommended to use the "half-medium change" method to maintain optimal cell conditions during passaging.

d) During passaging, you can directly add fresh growth medium to the culture flask, gently pipette to resuspend the cells, and then transfer the cell suspension to a new T-25 flask for continued culture.

**Subcultivation Ratio: Maintain cultures at a cell concentraion between 3E5 and 1E6 viable cells/mL.**

**Medium Renewal: Every 2 to 3 days**

## Notes

a) These cells are sensitive to density, so please ensure that the cell density is maintained within an appropriate range during culture and subculturing.

b) During the first passage, pay attention to the nutrient supply; if not subculturing, make sure to add fresh recovery medium every other day as needed.

## License Agreement:

**By purchasing and using this cell line product, the user voluntarily agrees to accept and abide by the following policies:**

- This cell line product is restricted to research use only and shall not be used for any commercial purposes.
- This product is strictly prohibited from being used in the diagnosis or treatment of human or animal diseases, and shall not be directly used in experiments involving humans.

Genomeditech (Shanghai) Co.,Ltd.
Order: +86 021-68455258/50432826/50432825
Toll-free: +86 400 627 9288
Email: service@genomeditech.com

- Users and their contractors engaged for their benefit may use this material and its derivatives only within the agreed research scope; modification of the material is not permitted, nor may it be distributed, sold, transferred, or otherwise provided to any other entity (including affiliates).
- If use beyond the above scope is required, prior written permission from Genomeditech (Shanghai) Co.,Ltd. must be obtained. For details, please contact Genomeditech (Shanghai) Co.,Ltd.