

# Product Sheet

## H\_TP53(Y220C) BaF3 Cell Line

Catalog number: GM-C30090

Version 3.3.1.250115

The TP53 gene is located on the short arm of human chromosome 17 (17p13.1) and belongs to the p53 family. It is widely distributed across various tissues, with expression particularly notable in tissues sensitive to DNA damage. The expression and activity of TP53 are regulated by various factors, including intracellular stress conditions, the microenvironment, and hormones.

Mutations in TP53 often lead to the loss of p53 protein function, rendering cells unable to effectively respond to DNA damage, which results in uncontrolled cell cycle progression and abnormal proliferation. These mutations are key driving factors in several cancers, such as breast cancer, lung cancer, and colorectal cancer, promoting tumor growth and metastasis.

BA/F3 cells are interleukin-3 (IL-3)-dependent precursor B cells. Certain protein kinases can substitute for IL-3 to support the growth of BA/F3 cells, allowing the use of inhibitors to antagonize this effect, thereby facilitating research on kinase inhibitors.

H\_TP53(Y220C) BaF3 Cell Line is a clonal stable BaF3 cell line constructed using lentiviral technology, constitutive expression of the TP53 gene. Can be used for the development and validation of small molecule drugs targeting TP53.

## Specifications

<b>Quantity</b>	5E6 Cells per vial, 1 mL
<b>Product Format</b>	1 vial of frozen cells
<b>Shipping</b>	Shipped on dry ice
<b>Storage Conditions</b>	Liquid nitrogen immediately upon receipt

<b>Recovery Medium</b>	RPMI 1640+10% FBS+1% P.S
<b>Growth medium</b>	RPMI 1640+10% FBS+1% P.S+0.25 µg/mL Puromycin
<b>Note</b>	None
<b>Freezing Medium</b>	90% FBS+10% DMSO
<b>Growth properties</b>	Suspension
<b>Growth Conditions</b>	37°C, 5% CO <sub>2</sub>

<b>Mycoplasma Testing</b>	The cell line has been screened to confirm the absence of Mycoplasma species.
<b>Safety considerations</b>	Biosafety Level 2
<b>Note</b>	It is recommended to expand the cell culture and store a minimum of 10 vials at an early passage for potential future use.

## Materials

<b>Reagent</b>	<b>Manufacturer/Catalogue No.</b>
RPMI 1640	VivaCell/C3010-0500
Fetal Bovine Serum	Cegrogen biotech/A0500-3010
Pen/Strep	Thermo/15140-122
Puromycin	Genomeditech/ <a href="#">GM-040401</a>

## Figures

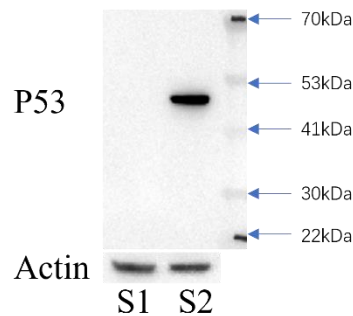


Fig. Western Blot检测Baf3细胞中目的基因的表达量  
一抗: 1:1000 二抗: rabbit, 1:3000  
S1: CON S2: H\_TP53(Y220C) BaF3 Cell Line

Figure 1 | The protein expression levels of Human TP53(Y220C) in the H\_TP53(Y220C) BaF3 Cell Line (Cat. GM-C30090) were determined by Western blotting (WB).

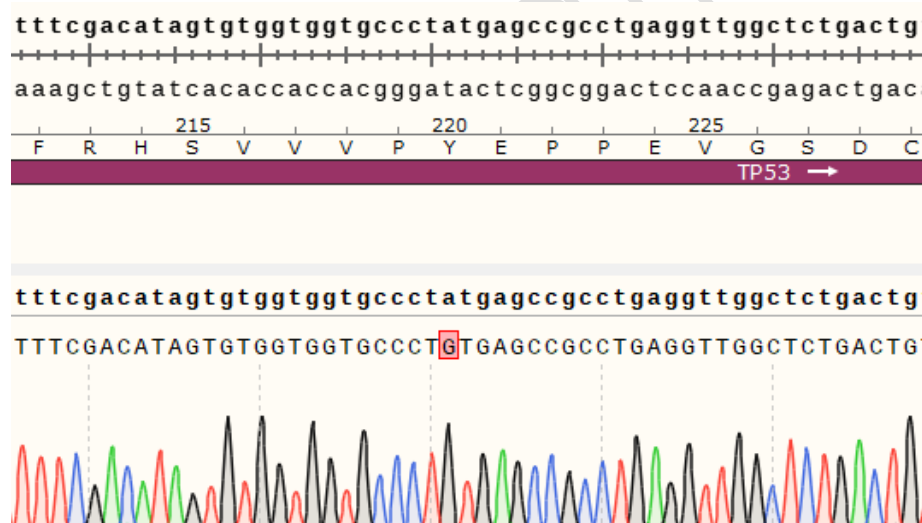


Figure 2 | The EGFR mutation analysis by Sanger sequencing.

## 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.

- 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  $176 \times g$  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<sub>2</sub> 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  $176 \times g$  for 3 minutes to collect cells.
- b) Resuspend the cells in pre-cooled freezing medium and adjust the cell density to  $5 \times 10^6$  cells/mL.
- c) Aliquot 1 mL into each vial.
- d) Place the vials 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+0.25 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  $1 - 1.2 \times 10^6$  cells/mL, subculture the cells. Do not allow the cell density to exceed  $1.4 \times 10^6$  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 concentration between  $3 \times 10^5$  and  $1 \times 10^6$  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.

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