

Cell Line NB-4 | 300299

General Information

Description	NB-4 is a human acute promyelocytic leukemia (APL) cell line. It is characterized by the presence of the PML-RAR fusion gene, which is a result of a reciprocal translocation between chromosomes 15 and 17. The cell line is derived from a patient with APL and is used for studying the pathogenesis and treatment of this disease. NB-4 cells are highly sensitive to retinoic acid (RA) and arsenic trioxide (As ₂ O ₃), which are the standard of care for APL. The cell line is also used for studying the differentiation of hematopoietic cells and the effects of various drugs on cell growth and survival.
Organism	Human
Tissue	Leukemia
Disease	Acute promyelocytic leukemia (APL)
Synonyms	NB4, NB.4

Cell Line Characteristics

Age	23 years
Gender	Male
Ethnicity	Chinese
Morphology	Granulocytic
Cell type	Myeloid B
Growth properties	Adherent

Cell Line Identification

Citation	NB-4 (Cell Line) Cytion 300299
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_0005

Antigen expression	CD4+, CD14-, CD36-
Reverse transcriptase	+++++
Karyotype	46,XX,t(15;17)(q22;q11-12)

Culture Medium	RPMI 1640, w: 2.0 mM $\text{CaCl}_2 \cdot \text{H}_2\text{O}$, w: 2.0 g/L NaHCO_3 (Ca^{++} Mg^{++} K^+ Cytion 820700a)
Supplements	Ca^{++} Mg^{++} 10% FBS
Doubling time	35 ~ 40 days
Subculturing	Cells are trypsinized at confluence, washed with PBS, and resuspended in serum-free medium containing 5 ng/ml dexamethasone. Cells are seeded at a density of 5×10^4 per well in 96-well plates.
Freeze medium	Serum-free medium + 10% DMSO + 10% FBS (10% FBS) + 10% DMSO

[illegible]

Cell Culture Media NB-4 | 300299

**Incubation
Atmosphere**

37°C, 5% CO_2 , humidified

Flask Coating

Cell culture

**Freezing
Procedure**

Cell culture medium is removed and cells are washed with PBS. Cells are then trypsinized and resuspended in freezing medium. The suspension is then aliquoted into 1 mL vials and frozen at -78°C.

**Shipping
Conditions**

Cell culture medium is removed and cells are washed with PBS. Cells are then trypsinized and resuspended in freezing medium. The suspension is then aliquoted into 1 mL vials and frozen at -78°C.

**Storage
Conditions**

Cell culture medium is removed and cells are washed with PBS. Cells are then trypsinized and resuspended in freezing medium. The suspension is then aliquoted into 1 mL vials and frozen at -150 to -196 °C.

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Sterility

Cell culture medium is removed and cells are washed with PBS. Cells are then trypsinized and resuspended in freezing medium. The suspension is then aliquoted into 1 mL vials and frozen at -78°C.

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HLA

A*: 11:01:01
B*: '35:01:01, '40:01:02
C*: '03:04:01, '04:01:01
DRB1*: '01:01:01, '04:04:01
DQA1*: '01:01:01, '03:01:01
DQB1*: 03:02, 05:01:01
DPB1*: '01:01:01, '04:01:01
E: 01:01:01