

Data Sheet

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BCRJ Code:	0381
Cell Line:	SK-N-BE(2)
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Brain
Cell Type:	Neuroblast
Morphology:	neuroblast
Disease:	Neuroblastoma
Growth Properties:	Mixed, Adherent And Suspension
Sex:	Male
Age/Ethnicity:	2 Year /
Derivation:	derived from metastatic site: bone marrow
DNA Profile:	Amelogenin: X,Y CSF1PO: 10 D13S317: 11 D16S539: 9,11 D5S818: 12 D7S820: 9,10 TH01: 6,7 TPOX: 8,11 vWA: 18
Biosafety:	1

Additional Info:

The SK-N-BE(2) neuroblastoma cell line was established in November of 1972 from a bone marrow biopsy taken from child with disseminated neuroblastoma after repeated courses of chemotherapy and radiotherapy. Population doubling time: 30h The cells exhibit moderate levels of dopamine beta hydroxylase activity. SK-N-BE(2) cells have a reported saturation density greater than 1×10^6 cells/cm². The morphology of the cells varies with some cells having long processes and others that are epithelioid like. The cells will aggregate, form clumps and float.



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Culture Medium:

1:1 mixture of Eagle's Minimum Essential Medium and F12 Medium fetal bovine serum to a final concentration of 10%.

Subculturing:

These cells grow as a mixture of floating and adherent cells. Remove the medium with the floating cells, and recover the cells by centrifugation. Rinse the adherent cells with a fresh 0.25% trypsin, 0.53 mM EDTA solution, add an additional 1 to 2 mL of trypsin solution, and let the culture sit at room temperature (or at 37°C) until the cells detach. Add fresh medium, aspirate, combine with the floating cells recovered above and dispense into new flasks.

Subculturing Medium Renewal:

1:12 to 1:20 is recommended.

Subculturing Subcultivation Ratio:

Every 4 to 7 days.

Culture Conditions:

Atmosphere: air, 95%; carbon dioxide (CO₂), 5%

Cryopreservation:

95% FBS + 5% DMSO (Dimethyl sulfoxide)

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SAFETY PRECAUTION: It is strongly recommended to always wear protective gloves, clothing, and a full-face mask when handling frozen vials. Some vials may leak when submerged in liquid nitrogen, allowing nitrogen to slowly enter the vial. Upon thawing, the conversion of liquid nitrogen back to its gas phase may cause the vial to explode or eject its cap with significant force, creating flying debris.

1. Thaw the vial by gently agitating it in a 37°C water bath. To minimize contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 minutes).
2. Remove the vial from the water bath as soon as its contents are thawed and decontaminate it by dipping in or spraying with 70% ethanol. From this point, all operations must be performed under strict aseptic conditions.
3. For cells sensitive to DMSO, it is recommended to remove the cryoprotective agent immediately. Transfer the vial contents to a centrifuge tube containing 9.0 mL of complete culture medium and centrifuge at approximately 125 × g for 5 to 7 minutes.
4. Discard the supernatant and resuspend the cell pellet in the recommended complete medium (see specific batch information for the appropriate dilution ratio).
5. Incubate the culture under appropriate atmospheric and temperature conditions (see "Culture Conditions" for this cell line).

NOTE: It is important to avoid excessive alkalinity of the medium during cell recovery. To minimize this risk, it is recommended to place the culture vessel containing the growth medium in the incubator for at least 15 minutes before adding the vial contents. This allows the medium to stabilize at its normal pH (7.0 to 7.6).

Biedler JL, Spengler BA. A novel chromosome abnormality in human neuroblastoma and antifolate-resistant Chinese hamster cell lines in culture. J. Natl. Cancer Inst. 57: 683-695, 1976. PubMed: 62055 Barnes EN, et al. The fine structure of continuous human neuroblastoma lines SK-N-SH, SK-N-BE(2), and SK-N-MC. In Vitro 17: 619-131, 1981. PubMed: 7327593 Biedler JL, Spengler BA. Metaphase chromosome anomaly: association with drug resistance and cell-specific products. Science 191: 185-187, 1976. PubMed: 942798 Biedler JL, et al. Multiple neurotransmitter synthesis by human neuroblastoma cell lines and clones. Cancer Res. 38: 3751-3757, 1978. PubMed: 29704

Thawing Frozen Cells:

References:

Depositors:

Silvia de Toledo - Grupo de Apoio ao Adolescente e a Criança com Câncer

Cellosaurus:

[CVCL_0528](#)

