

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 THO1: 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)

Thawing Frozen Cells:

SAFETY PRECAUTION: It is highly recommended that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials leak when submerged in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vessel exploding or blowing off its cap with dangerous force creating flying debris. 1. 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 minutes). 2. 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. 3. For cells that are sensitive to DMSO it is recommended that the cryoprotective agent be removed immediately. Transfer the vial contents to a centrifuge tube containing 9.0 mL complete culture medium and spin at approximately 125 x g for 5 to 7 minutes. 4. Discard the supernatant and Resuspend cell pellet with the recommended complete medium (see the specific batch information for the culture recommended dilution ratio). 5. Incubate the culture in an appropriate atmosphere and temperature (see "Culture Conditions" for this cell line). **NOTE:** It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6).

References:

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

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[CVCL_0528](#)