

Cell Line Data Sheet for SMS-LHN

Disease: Neuroblastoma
Phase of Therapy: Post-Chemotherapy (Progressive Disease)
Treatment: Doxorubicin, cyclophosphamide
Disease Stage: 4
Gender: Male
Age at diagnosis: 24 months
Race: N/A
Age at sample collection: N/A
Source of Culture: Solid Tumor (femur)
Primary Tumor Site: Adrenal gland
Date Established: November 1979

MYCN Patient: Non-Amplified
MYCN Cell line: N/A
TH mRNA: Positive
p53 functionality: Functional
Telomere Mechanism N/A
ALK: N/A

IC90 (DIMSCAN*):	<u>CBDCA (µg/ml)</u>	<u>CDDP (µg/ml)</u>	<u>DOX (ng/ml)</u>	<u>ETOP (ng/ml)</u>	<u>L-PAM (µg/ml)</u>
*see reference 4	1.4	0.1	23.7	559.6	0.5

CBDCA, carboplatin; CDDP, cisplatin; DOX, doxorubicin; ETOP, etoposide; L-PAM, melphalan

Growth Conditions: Please see Protocols section at <https://www.cccells.org/protocols.php>
5% CO₂, 20% O₂, 37.0°C

Media Formulation: Please see Protocols section at <https://www.cccells.org/protocols.php>
Cells are grown in a base medium of Iscove's Modified Dulbecco's Medium plus the following supplements (to a final concentration): 20% Fetal Bovine Serum, 4mM L-Glutamine, 1X ITS (5 µg/mL insulin, 5 µg/mL transferrin, 5 ng/mL selenous acid)

Doubling Time: 216 hours
Growth Properties: Teardrop-shaped cells with neurite outgrowth, adherent, grows in clusters

STR Profile: May be obtained at <https://strdb.cccells.org/>

Notes:

All COG Repository cell lines are antibiotic-free, mycoplasma-free, and cryopreserved in 50% FBS / 7.5% DMSO. Each vial label contains the cell line name, passage number, total viable cell count (usually 5-10e6), the overall cell viability, and date frozen. All cell lines are validated with original patient sample by STR analysis.

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References:

1. Keshelava N, Zuo JJ, Chen P, Waidyaratne SN, Luna MC, Gomer CJ, Triche TJ, Reynolds C P: Loss of p53 function confers high-level multi-drug resistance in neuroblastoma cell lines. *Cancer Res.* 61:6185-6193, 2001. PubMed ID: 11507071
<https://cancerres.aacrjournals.org/content/61/16/6185.long>
2. Reynolds CP, Brodeur GM, Tomayko MM, Donner L, Helson L, Seeger RC, Triche TJ: Biological classification of cell lines derived from human extra-cranial neural tumors. *Prog Clin Biol Res.* 271:291-306, 1988. PubMed ID: 3406003
3. Wada RK, Seeger RC, Brodeur GM, Rayner SA, Tomayko MM, Reynolds CP: N-myc expression in human neuroblastoma cell lines without N-myc gene amplification, *Cancer.* 72:3346-3354, 1993. PubMed ID: 8242562
4. Wang Y, Einhorn P, Triche TJ, Seeger RC, Reynolds CP. Expression of Protein Gene Product 9.5 and Tyrosine Hydroxylase in Childhood Small Round Cell Tumors. *Clin Cancer Res.* 6, 551-558, 2000. PubMed ID: 10690538
<https://clincancerres.aacrjournals.org/content/6/2/551.long>
5. Keshelava N, Groshen S, Reynolds CP. Cross-resistance of topoisomerase I and II inhibitors in neuroblastoma cell lines. *Cancer Chemoth Pharm.* 45: 1-8, 2000. PubMed ID: 10647494
<https://link.springer.com/article/10.1007%2FPL00006736>
6. Keshelava N, Davicioni E, Wan Z, Ji L, Sposto R, Triche TJ, Reynolds CP. Histone Deacetylase 1 Gene Expression and Sensitization of Multidrug-Resistant Neuroblastoma Cell Lines to Cytotoxic Agents by Depsipeptide. *J Natl Cancer I.* 99: 1107-19, 2007. PubMed ID: 17623797
<https://academic.oup.com/jnci/article/99/14/1107/938992>
7. Kang MH, Smith MA, Morton CL, Keshlava N, Houghton PJ, Reynolds CP. National Cancer Institute Pediatric Preclinical Testing Program: Model Description for In Vitro Cytotoxicity Testing. *Pediatr Blood Cancer.* 56: 239-249, 2011. PubMed ID: 20922763 (www.PPTPinvitro.org)
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3005554/>



Cell Line Data Sheet for SMS-LHN

Cell Line Name: SMS-LHN

Low confluency (10x magnification)

High confluency (10x magnification)

Low confluency (20x magnification)

High confluency (20x magnification)

Childhood Cancer Repository
Powered by Alex's Lemonade Stand
COG resource Laboratory

