

## StemLife™ NSC Culture Medium Specification Sheet



### StemLife NSC Culture Medium

StemLife NSC Medium is optimized for the culture of human induced pluripotent stem cell (iPSC)-derived Neural Stem Cells: XCL-1 NSC, and XCL-6 NSC; as well as Human H9 (Embryonic Stem Cell)-derived NSCs, and Human Parthenote-derived NSCs. StemLife NSC supports the undifferentiated expansion of iPSC-derived Neural Stem Cells while maintaining the proper NSC morphology and gene expression.

StemLife Basal Medium contains no antimicrobials and no phenol red. Lifeline offers antimicrobials and phenol red; however, they are not required for eukaryotic cell proliferation.

### StemLife NSC Culture Medium Components

StemLife NSC is offered in a kit format composed of basal medium and associated supplements and growth factors called “LifeFactors®.” This kit allows you to prepare fresh medium in your laboratory, extending shelf life and enhancing performance. StemLife Basal Medium is provided in a light-protected 500 mL bottle. The remaining LifeFactors (growth factors and supplements) are packaged in a convenient gas-impermeable pouch for easy storage.

Product	Part No.	Volume	Final Concentrations in Supplemented Medium	Storage
<b>StemLife NSC Medium Complete Kit, (StemLife Basal Medium, StemLife NSC LifeFactors Kit)</b>	<a href="#">LL-0070</a>			2-8°C when prepared
<b>StemLife Basal Medium</b>	<a href="#">LM-0011</a>	485 mL		2-8°C
<b>StemLife NSC LifeFactors Kit</b>	<a href="#">LS-1105</a>			-20°C
rh EGF LifeFactor	<a href="#">LS-1046</a>	1 mL	10 ng/mL	-20°C
L-Alanyl-L-Glutamine LifeFactor	<a href="#">LS-1053</a>	6 mL	2.4 mM	-20°C
NeuraFactor™ LifeFactor	<a href="#">LS-1106</a>	10 mL	proprietary	-20°C
rh FGFB LifeFactor	<a href="#">LS-1107</a>	2 mL	20 ng/mL	-20°C
Antimicrobial Supplement: Gentamicin and Amphotericin B (Provided with purchase of LL-0070 and LL-0073)	<a href="#">LS-1104</a>	0.5 mL	Gentamicin 30 µg/mL Amphotericin B 15 ng/mL	-20°C
<b>StemLife NSC Medium + Fibronectin Kit</b>	<a href="#">LL-0073</a>		StemLife Basal Medium StemLife NSC LifeFactors Kit Fibronectin Solution	2-8°C when prepared
<b>Optional Supplements</b>	<b>Part No.</b>	<b>Volume</b>	<b>Concentrations of Supplement</b>	<b>Storage</b>
Phenol Red Supplement	<a href="#">LS-1009</a>	1 mL	33 mM	RT
<b>Other Recommended Products</b>	<b>Part No.</b>	<b>Volume</b>	<b>Unit</b>	<b>Storage</b>
Human XCL-1-derived Neural Stem Cells (XCL-1 NSC)	<a href="#">IC-0001</a>		1,000,000 cells/mL	-150°C
Fibronectin Solution, 10 mL	<a href="#">CM-0098</a>		0.1 mg/mL	2-8°C

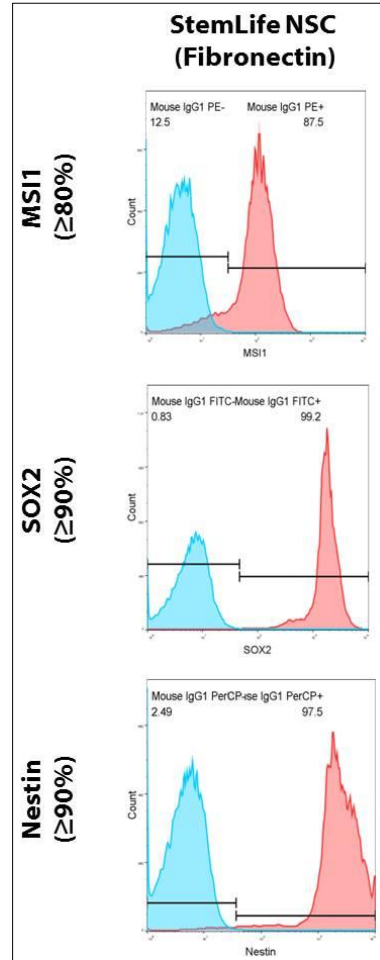
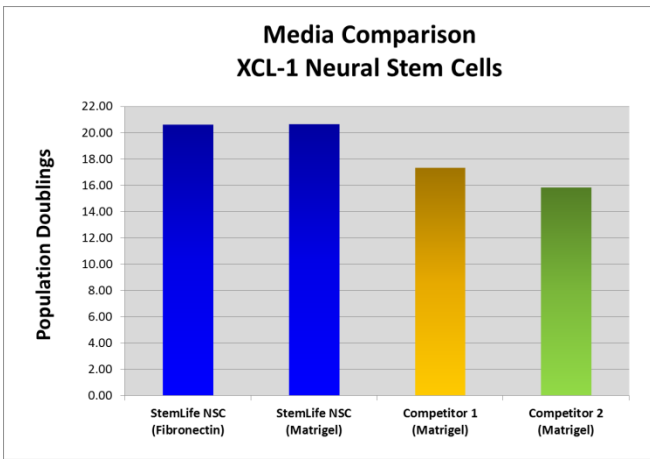
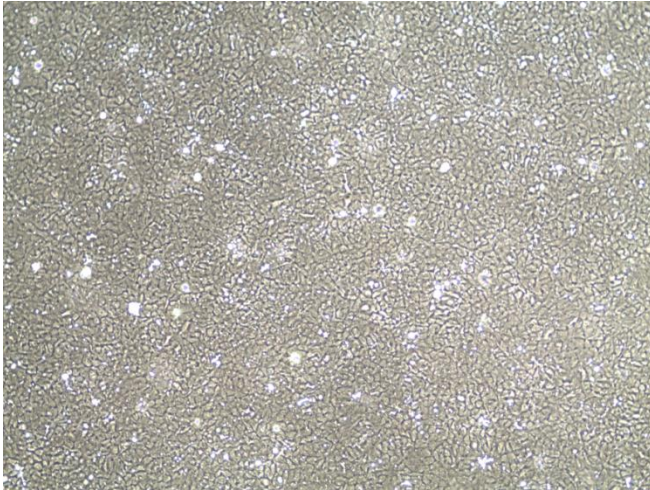
### Quality Testing for Guaranteed Consistency and Reproducible Results

Lifeline Cell Technology manufactures products using the highest quality raw materials and incorporates ISO style quality assurance in every production run. Exacting standards and production procedures ensure lot-to-lot consistency. Every production lot of StemLife NSC Medium is extensively tested using XCL-1 Neural Stem Cells. StemLife NSC Medium and Gentamicin-Amphotericin B ([LS-1104](#)) are cell culture tested separately.

- Sterility Testing Negative for bacteria and fungal growth
- pH 7.8 +/- 0.3
- Cell Testing Rate of proliferation and morphology
- Osmolality 270 +/- 10 mOsm
- Endotoxin < 0.5 EU/mL

To place an order, please visit [lifelinecelltech.com](http://lifelinecelltech.com) or call technical and customer service at 877.845.7787.

StemLife™ NSC Medium grows human iPSC-derived Neural Stem Cells (XCL-1 NSC) through at least 15 population doublings at rates that meet or exceed other commercially available media while maintaining excellent cell morphology in an undifferentiated NSC state.



Shown top left: Lifeline's XCL-1 NSC grown on Fibronectin ([CM-0098](#)) in StemLife NSC Medium 3 days after inoculation with 40,000 cells/cm<sup>2</sup>, and 4 passages post cryovial (100X).

Shown bottom left: Lifeline's XCL-1 NSC grown on Fibronectin or ES-tested Matrigel® [1:100 dilution, per manufacturer's specifications] in StemLife NSC Medium and two commercially available NSC culture media.

XCL-1 NSC were seeded at 40,000 cells/cm<sup>2</sup> for a total of 8 passages, and the number of total population doublings was calculated.

Shown right: Panel of flow cytometry histograms of cell markers expressed by Lifeline's XCL-1 NSC grown on Fibronectin in StemLife NSC Medium at the end of being cultured for 8 passages post cryovial.

### The Lifeline® Guarantee

Lifeline's rigorous quality control ensures sterility and performance to standardized testing criteria. Upon request, Lifeline will provide lot-specific QC test results, material safety data sheets, and certificates of analysis. See complete guarantee/warranty statement at [lifelinecelltech.com](http://lifelinecelltech.com) or contact your Lifeline representative for more information.

### Innovative Packaging Features

Lifeline has made significant improvements to traditional medium packaging.

- The specially designed shrink label works as a light barrier to help protect medium from light damage.
- A barrier sleeve helps protect the medium from contaminants found in the water bath.
- Lifeline is an environmentally friendly company. Our cell culture media bottles are recyclable and we ship all products with biodegradable packing material.

### Safety Statement

This product is for Research Use Only. This product is not approved for human or veterinary use, or for use in *in vitro* diagnostics or clinical procedures.

Matrigel® is a registered trademark owned by Corning® Incorporated.

**Call Lifeline Technical Service and Sales at 877.845.7787**  
 or visit [lifelinecelltech.com](http://lifelinecelltech.com) for more information

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