

## StemLife™ MSC Cell Culture Medium Specification Sheet



### StemLife MSC Cell Culture Medium

StemLife MSC Medium is optimized for the culture of Human Mesenchymal Stem Cells isolated from Wharton's Jelly or Adipose tissues. StemLife MSC supports the undifferentiated expansion of HMSC.

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 MSC Culture Medium Components

StemLife MSC 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.

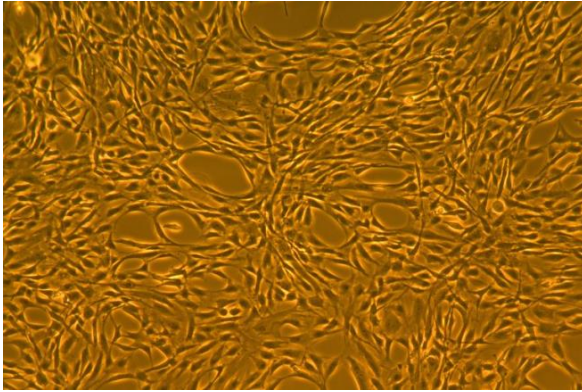
Product	Part No.	Volume	Final Concentrations in Supplemented Medium		Storage
<b>StemLife MSC Medium Complete Kit, (StemLife Basal Medium, StemLife MSC LifeFactors Kit)</b>	<a href="#">LL-0034</a>				2-8°C when prepared
<b>StemLife Basal Medium</b>	<a href="#">LM-0011</a>	485 mL			2-8°C
<b>StemLife MSC LifeFactors Kit</b>	<a href="#">LS-1060</a>				-20°C
L-Alanyl-L-Glutamine LifeFactor	<a href="#">LS-1053</a>	6 mL	2.4 mM		-20°C
MSC LifeFactor	<a href="#">LS-1058</a>	10 mL	proprietary		-20°C
Antimicrobial Supplement: Gentamicin and Amphotericin B (Provided with purchase of LL-0034)	<a href="#">LS-1104</a>	0.5 mL	Gentamicin Amphotericin B	30 µg/mL 15 ng/mL	-20°C
<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 Mesenchymal Stem Cells-Wharton's Jelly (HMSC-WJ)	<a href="#">FC-0020</a>		500,000 cells/mL		-150°C
Human Mesenchymal Stem Cells-Adipose (HMSC-Ad)	<a href="#">FC-0034</a>		1,000,000 cells/mL		-150°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 MSC Medium is extensively tested using Mesenchymal Stem Cells. StemLife MSC 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

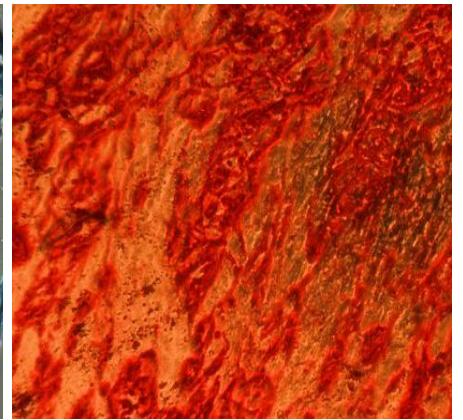
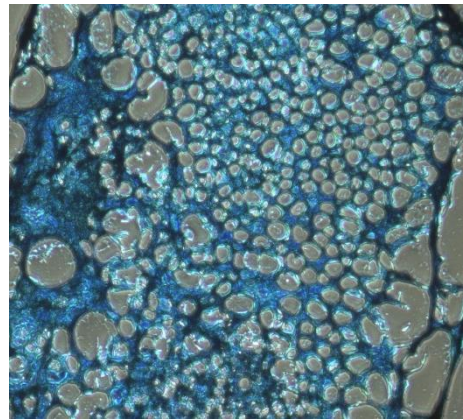
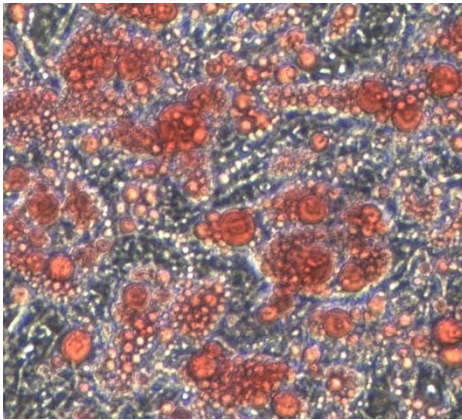
To place an order, please visit [lifelinecelltech.com](http://lifelinecelltech.com) or call technical and customer service at 877.845.7787.



StemLife™ MSC Medium grows Human Mesenchymal Stem Cells (HMSC-WJ or HMSC-Ad) while maintaining an undifferentiated state. Mesenchymal Stem Cells can then be differentiated as seen below.

*Shown left:* Lifeline's HMSC-Ad, passage 4, 4 days after inoculation with approximately 4,500 cells/cm<sup>2</sup> (100X).

*Shown below (from left to right):* Lifeline's HMSC-Ad differentiated to adipocytes (stained with Oil Red O, 100X); chondrocytes (sliced and stained with Alcian blue, 400X); and osteoblasts (stained with Alizarin Red S, 100X).



### 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.

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

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