

## NeuraLife™ Neuronal Maintenance Medium with J20™ LifeFactor Specification Sheet



### NeuraLife Medium

NeuraLife™ Neuronal Maintenance Medium containing J20 LifeFactor is a new medium optimized for the culture of neurons. In comparison to commercially available media, NeuraLife shows superior maintenance of differentiated human neural cells for a minimum of 18 days. NeuraLife contains no antimicrobials and no phenol red since these components can cause cell stress and “masking effects” that may influence experimental results (Lifeline offers these traditional supplements; however they are not needed, or recommended, to achieve optimal cell performance).

NeuraLife 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. This allows you to prepare fresh medium in your laboratory, according to the needs of your specific research. NeuraLife Basal Medium is provided in a light-protected 500 mL bottle.

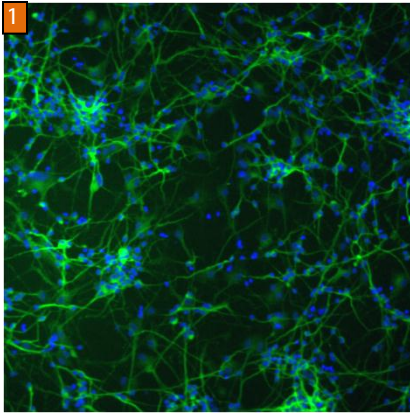
Product	Part No.	Volume	Concentration	Storage
<b>NeuraLife Complete Kit (NeuraLife Basal Medium – 500 mL, L-Glutamine – 25 mL, J20 LifeFactor – 10 mL)</b>	<a href="#">LL-0055</a>	Kit		2-8°C when prepared
<b>NeuraLife Basal Medium</b>	<a href="#">LM-0005</a>	500 mL		2-8°C
L-Glutamine LifeFactor	<a href="#">LS-1013</a>	25 mL	Add <b>5 mL</b> to achieve 2 mM final concentration	-20°C
J20 LifeFactor	<a href="#">LS-1080</a>	25 mL	2% Final Concentration	-20°C
Optional Supplements	Part No.	Volume	Concentration of Supplement	Storage
Phenol Red Supplement	<a href="#">LS-1009</a>	1.0 mL	33 mM	RT
Antimicrobial Supplement: Penicillin, Streptomycin and Amphotericin B	<a href="#">LS-1011</a>	1.0 mL	Penicillin 10,000 Units/mL Streptomycin 10,000 µg/mL Amphotericin B 25 µg/mL	-20°C

### Quality Testing for Guaranteed Consistency and Reproducible Results

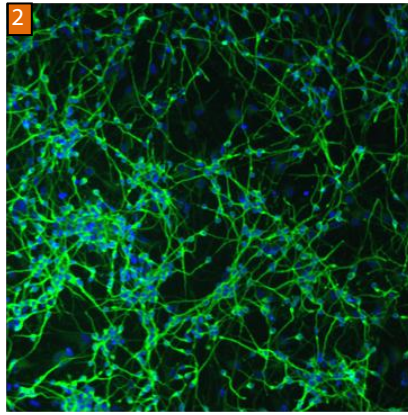
Lifeline® manufactures products using the highest quality raw materials and incorporates ISO style quality assurance in every production run. Exacting standards and production procedures ensure lot-to-lot consistency. Every production lot of NeuraLife Basal Medium and J20 is extensively tested using differentiated human neuronal progenitor cells rather than an immortalized cell line.

- Sterility Testing      Negative for bacterial and fungal growth
- pH                              7.4 +/- 0.2
- Cell Testing Using Differentiated Human Neurons
  - Viability 21-24 days after inoculation in 96-well plates
  - Immunostaining for MAP2 or TUJ1
  - Proportion of neurons to total cells: ≥25%.
- Osmolality      220 +/- 10 mOsm
- Endotoxin      < 0.5 EU/mL

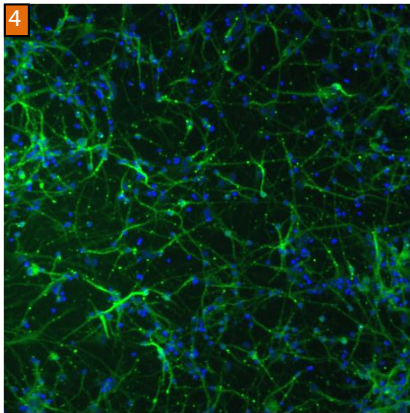
To place an order, please visit [lifelinecelltech.com](http://lifelinecelltech.com) or call technical and customer service at 877.845.7787.



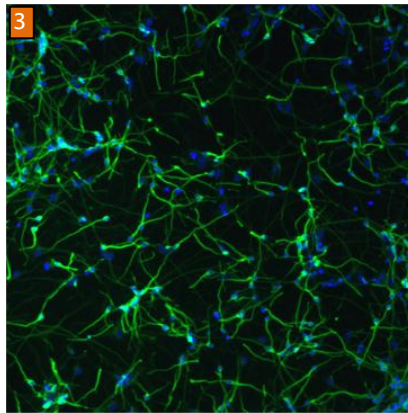
30.4%  $\pm$ 4% MAP2+ neurons



42.8%  $\pm$ 3.7% TUJ1+ neurons.



24%  $\pm$ 12% MAP2+ neurons



38.8%  $\pm$ 5.2% TUJ1+ neurons.

Differentiated human neural cells maintained in culture for 18 days in complete NeuraLife™ Maintenance Medium or the leading competitor medium. Nuclei are stained with Hoechst nuclear stain.

*Primary antibodies:* mouse monoclonal anti-MAP2a + MAP2b (microtubule associated protein 2) or rabbit polyclonal anti- $\beta$  tubulin III (TUJ1 epitope).

*Secondary antibodies:* AlexaFluor® 488 conjugated goat anti-mouse IgG or AlexaFluor® 546 conjugated goat anti-rabbit IgG.

*Clockwise from upper left:*

1. Neurons maintained in NeuraLife and immunostained for MAP2.
2. Neurons maintained in NeuraLife and immunostained for TUJ1.
3. Neurons maintained in the competitor medium and stained for TUJ1.
4. Neurons maintained in the competitor medium and stained for MAP2.

Neuron counts are the average of 12 wells (average of 5 fields counted per well)  $\pm$  standard deviation.

NeuraLife Medium maintains differentiated human neurons for a minimum of 18 days from the transfer to maintenance medium. In comparisons with other commercially available media, NeuraLife shows superior maintenance, viability and maturation of differentiated neurons.

### The Lifeline® Guarantee

Lifeline's rigorous quality control ensures sterility and performance to standardized testing criteria. If Lifeline's products do not meet our posted performance and quality standards, we will replace them at no charge or provide a full refund. 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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