## **CERTIFICATE OF ANALYSIS**

Product Description	AGAR, PLANT TC Micropropagation Grade - Gracilaria
Product Number	A111
Lot Number	ARK0111190
Storage Temperature	Room Temperature
CAS Number	9002-18-0

## **Physiochemical Specifications:**

TEST	SPECIFICATION	RESULTS
Solubility	Soluble in Water Heated to Boiling	Passes
pH (8.00 g/L)	5.5 - 9.5	7.3
Physical Appearance		
Color*	2016-70 to 2021-70, 2151-70 to	
	2156-70, 2150-60 to 2154-60,	
	HC-32, or HC-36	HC-32 Tan
Texture	Fine to Coarse Powder	Fine Powder
Solution Appearance After Heating		
Clarity	Clear to Slightly Hazy	Slightly Hazy
Color	Colorless to Slight Yellow Tint	Slight Yellow Tint
Insolubles	None	Passes
Gel Strength	Minimum 900 g/cm <sup>2</sup>	1090 g/cm <sup>2</sup>
	Forms Gel When Suspend in	
Gel Formation	Appropriate Solvent and Heated to	Passes
	Boiling	
Compression Break Force Test	Force Gauge Measurement (g/cm <sup>2)</sup>	$167.2 \text{ g/cm}^2$
	For Information Only	10/.2 g/cm <sup>-</sup>

\* Product color based upon comparisons between sample and standardized color wheel (Benjamin Moore® Color Preview<sup>TM</sup>).

**Biological Testing:** 

Test Concentration: 8.0 g/L

TEST SPECIFICATION	PLANT CELL LINE	RESULTS
This product is tested with two or more plant cell lines to ensure proper gelling, support, and that there are no phytotoxic impurities that would cause morphological aberrations to plants.	Tobacco Callus	Passes
	Coreopsis	Passes

The material described in this certificate is plant-derived (Seaweed). No animal-derived components were used in the manufacture of this product.

PhytoTech Labs Inc. provides the above information intended to be used only as a guide to the appropriate handling of this material by a properly trained person. PhytoTech Labs Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.

Date of Release: 11-November-2019 Recommended Shelf Life Date: November-2027

David S. Hart Technical Services Manager

 PhytoTech Labs Inc.

 14610 W 106<sup>TH</sup> St. Lenexa, KS 66215

 Phone:
 1-888-749-8682 or 1-913-341-5343

 Fax:
 1-888-449-8682 or 1-913-341-5442

 Phytotechlab.com