



CERTIFICATE OF ANALYSIS

Product Name: William's Medium E
With L-Glutamine
Without L-Methionine, Choline Chloride, and Sodium Bicarbonate

Catalog Number: WMP03 Storage: 2 to 8°C
Lot Number: 04140017 Manufacture Date: April 2014
Expiration Date: 30 April 2018

MADE IN THE USA

Test	Specifications	Results
Appearance	Off-White Powder	PASS
Solubility (in H ₂ O)	10.80 g/L in ≤ 30 minutes	12 minutes
Moisture Content	≤ 2%	< 1.75%
Particle Size (100 mesh)	≥ 90%	≥ 95%
pH (<i>measured at ~ 22 °C</i>)		
Without NaHCO ₃	Record	4.18
With 2200 mg/L NaHCO ₃	Record	7.44
Osmolality		
Without NaHCO ₃	Record mM/Kg	257 mM/Kg
With 2200 mg/L NaHCO ₃	Record mM/Kg	299 mM/Kg
Endotoxin	≤ 1.0 EU/mL	< 0.15 EU/mL
	<i>Endotoxin testing was performed using the LAL detection method.</i>	
Mycoplasma	Negative	NEGATIVE
	<i>Mycoplasma test was performed using MycoAlert® Mycoplasma Detection Assay.</i>	
Animal Cell Culture		
Cell Growth Promotion	3 Passages	PASS
Viability	≥ 80%	> 90%
	<i>Medium was supplemented with 10% FBS, 2200 mg/L NaHCO₃, 15mg/L L-Methionine and 1.5mg/L Choline Chloride. Adjusted to a pH of 7.31 and tested using BHK cells grown in a monolayer in a 5% CO₂ atmosphere.</i>	

This product was produced and tested in accordance with all relevant SOP's and meets or exceeds the quality standards established by Caisson Laboratories, Inc.
This product is intended for laboratory use only.

Becky Kowallis 12/8/2016
Quality Control