

Certificate of Analysis

Date of Testing: 2023-11-20 11:09:45
Date of Next Testing: 2027-11-19 11:09:45
Product Name: **1,4-Piperazinediethanesulfonic acid(PIPES)**
CAS Number: 5625-37-6
Specifications & Purity: for cell culture, $\geq 99\%$
Lot #: K2310008
SKU #: **P105092**
Version: **0**
Analysis #: **109097**
Storage Temperature: Room temperature

Parameter	Limit Values	Result
UV Absorbance 290nm(20% in 1N NaOH)	0-0.1	0.06
Heavy metal (as Pb)	0-5 (ppm)	0.00 ppm
Purity (Titration by H ₂ SO ₄)	99-100 (%)	99.13 %
Endonuclease Detection	0-0.1 (EU/g)	0.10 EU/g
standard plate count	0-100 (cfu/g)	95.00 cfu/g
Appearance (P105092)	White Crystals, Powder or Crystalline Solid	White Crystals, Powder or Crystalline Solid
Cell Culture Test	pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
RNASE, DNASE, NICKASE AND PROTEASE	none detected	none detected
Solubility in 1N NaOH , Colorless,Clear,250mg/ml	pass	Pass



John Su
QA & QC Manager