

## Certificate of Analysis

Date of Testing: 2024-11-05 11:20:34  
Date of Next Testing: 2026-11-05 11:20:34  
Product Name: **Spermine**  
CAS Number: 71-44-3  
Specifications & Purity: Moligand™, ≥98%  
Lot #: D2129203  
SKU #: **S109704**  
Version: **0**  
Analysis #: **430631**  
Storage Temperature: Store at 2-8°C

Parameter	Limit Values	Result
Purity(GC)	98-100 (%)	98.10 %
Water by Karl Fischer	0-3 (%)	1.41 %
Appearance (S109704)	White solid or amorphous semi-solid	White solid or amorphous semi-solid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Solubility in H <sub>2</sub> O , clear colorless solution at 50mg/ml	pass	Pass



John Su  
QA & QC Manager