

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2022-08-04 16:37:06

Date of Next Testing: 2026-08-03 16:37:06

Product Name: **(+)-Sparteine**

CAS Number: 492-08-0

Specifications & Purity: 98%

Lot #: G2229205

SKU #: **S121165**

Version: **0**

Analysis #: **094386**

Storage Temperature: Protected from light, Store at -20°C, Argon charged

Parameter	Limit Values	Result
Specific Rotation $[\alpha]_{20/D}(c=1 \text{ in EtOH})$ 16-19 (°)		17.68°
Purity(GC)	98-100 (%)	99.36 %
Refractive index $n_{20/D}$	1.526-1.53	1.53
Appearance (S121165)	Colorless to light yellow or brown Liquid	Colorless to light yellow or brown Liquid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure

A handwritten signature in black ink that reads "John Su".

John Su
QA & QC Manager