

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-09-04 09:18:55
 Date of Next Testing: 2026-09-03 09:18:55
 Product Name: (S)-(-)-2,2'-Bis(di-p-tolylphosphino)-6,6'-dimethoxy-1,1'-biphenyl
 CAS Number: 133545-25-2
 Specifications & Purity: $\geq 97\%$, $\geq 99\%$ (ee)
 Lot #: H2321002
 SKU #: S281836
 Version: 1
 Analysis #: 260405
 Storage Temperature: Room temperature

Parameter	Limit Values	Result
Purity(HPLC area)	97-100 (%)	97.30000 %
Enantiomeric Excess	99-100 (%)	99.00000 %
Phosphorus NMR Spectra	Conforms to Structure	Conforms to Structure
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Appearance(S281836)	White to Almost white powder to crystal	White to Almost white powder to crystal



John Su
QA & QC Manager