

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2026-06-04 13:19:26

Date of Next Testing: 2029-06-03 13:19:26

Product Name: **(S)-1-Boc-2-Butyl-Piperazine**

CAS Number: 169447-76-1

Specifications & Purity: $\geq 97\%$

Lot #: E2629143

SKU #: **B728395**

Version: **3**

Analysis #: **635083**

Storage Temperature: Store at 2-8°C, Protected from light

Parameter	Limit Values	Result
specific rotation $[\alpha]_{20/D}(C=1, \text{MeOH})$	44.5-48.5 (°)	47.58000°
Purity(GC)	97-100 (%)	97.75700%
NMR Spectrum 1H	Conforms to Structure	Conforms to Structure
LC-MS for identification	Conforms	Conforms



John Su
QA & QC Manager