

Chem-Impex International, Inc.

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Certificate of Analysis

| | |
|-------------------------|---|
| Catalogue Number | 22653 |
| Lot Number | 002494-20171024 |
| Product | tetra-Boc-spermine-5-carboxylic acid |

Boc4-Sper-COOH

| | |
|--------------------------|--|
| CAS Number | 119798-08-2 |
| Molecular Formula | C ₃₁ H ₅₈ N ₄ O ₁₀ |
| Molecular Weight | 646.82 |

| | |
|---------------------------|--|
| Appearance | White solid |
| Optical Rotation | [α] _D ²⁰ = - 24.6 ± 1.6 ° (C=1, in MeOH) |
| ¹³C NMR | Conforms to structure |
| ¹H NMR | Conforms to structure |
| Purity | > 97% |
| Storage | Store at 0-8 °C |
| Remarks | See material safety data sheet for additional information For laboratory use only |

The foregoing is a copy of the Certificate of Analysis as provided by our supplier



Bala Kumar
Quality Control Manager