



## Certificate of Analysis

<b>Product Name</b>	Spermine tetrahydrochloride
<b>Catalog No.</b>	V15128
<b>Batch No.</b>	V1512801

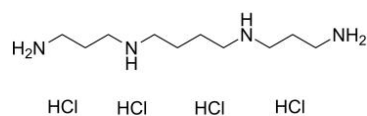
### 1. Physical and Chemical Properties

<b>Appearance</b>	Powder
<b>Molecular Formula</b>	C <sub>10</sub> H <sub>30</sub> Cl <sub>4</sub> N <sub>4</sub>
<b>Molecular Weight</b>	348.178
<b>Purity</b>	≥98.0%
<b>CAS No.</b>	306-67-2

### 2. Analytical Data

<b>HPLC</b>	Indicates ≥98.0% purity
<b>NMR</b>	Consistent with structure
<b>Mass Spectrum</b>	Consistent with structure

### 3. Structure



### 4. Storage Condition

<b>Short term storage (weeks)</b>	0 - 4 °C under dry condition
<b>Long term storage (months)</b>	-20 °C under dry condition

Products are for research use only • Not for human or veterinary use