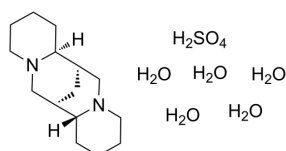


## Certificate of Analysis

**Product Name:** (+)-Sparteine (sulfate pentahydrate)  
**Cat. No.:** CS-0166595  
**Batch No.:** 17592  
**Chemical Name:** (+)-7,14-Methano-2H,6H-dipyrido[1,2-a:1',2'-e][1,5]diazocine, dodecahydro-, (7S,7aR,14S,14a S)-, sulfate, hydrate (1:1:5)

### PHYSICAL AND CHEMICAL PROPERTIES

**Molecular Formula:** C<sub>15</sub>H<sub>38</sub>N<sub>2</sub>O<sub>9</sub>S  
**Molecular Weight:** 422.54  
**Storage:** 2-8°C, sealed storage, away from moisture  
**Chemical Structure:**



### ANALYTICAL DATA

**Appearance:** Off-white to brown (Solid)  
**<sup>1</sup>H NMR Spectrum:** Consistent with structure  
**Purity (NMR):** ≥98.0%  
**Conclusion:** The product has been tested and complies with the given specifications.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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