

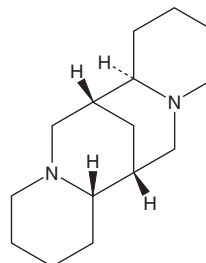
# PRODUCT INFORMATION



## (+)-Sparteine

Item No. 36400

**CAS Registry No.:** 492-08-0  
**Formal Name:** (7R,7aR,14R,14aS)-dodecahydro-7,14-methano-2H,6H-dipyrido[1,2-a:1',2'-e][1,5]diazocine  
**Synonyms:** Pachycarpin, Pachycarpine  
**MF:** C<sub>15</sub>H<sub>26</sub>N<sub>2</sub>  
**FW:** 234.4  
**Purity:** ≥95%  
**Supplied as:** A neat liquid  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Item Origin:** Plant/*Parochetus communis*



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

(+)-Sparteine is supplied as a neat liquid. A stock solution may be made by dissolving the (+)-sparteine in the solvent of choice, which should be purged with an inert gas. (+)-Sparteine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of (+)-sparteine in these solvents is approximately 20, 33, and 11 mg/ml, respectively.

(+)-Sparteine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (+)-sparteine should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. The solubility of (+)-sparteine in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

(+)-Sparteine is a quinolizidine alkaloid that has been found in *Fabaceae*.<sup>1</sup> It has been used as a chiral ligand in stereoselective lithiation reactions.<sup>2,3</sup>

### References

1. van Wyk, B.-E. and Verdoorn, G.H. Optical rotation of quinolizidine alkaloids: An important variable in chemosystematic studies of *Fabaceae*. *Pl. Syst. Evol.* **198**(3/4), 267-274 (1995).
2. McSweeney, C.M., Foley, V.M., and McGlacken, G.P. The asymmetric alkylation of dimethylhydrazones; intermolecular chirality transfer using sparteine as chiral ligand. *Chem. Commun. (Camb.)* **50**(94), 14817-14819 (2014).
3. Lin, W., Zhang, K.-F., and Baudoin, O. Regiodivergent enantioselective C-H functionalization of Boc-1,3-oxazinanes and application to the synthesis of  $\beta_2$  and  $\beta_3$ -amino acids. *Nat. Catal.* **2**(10), 882-888 (2019).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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