

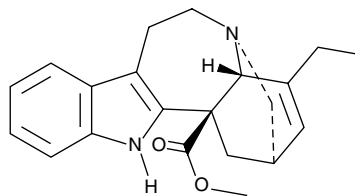
# Product Information



## Catharanthine

Item No. 11695

**CAS Registry No.:** 2468-21-5  
**Formal Name:** (2 $\alpha$ ,5 $\beta$ ,6 $\alpha$ )-3,4-didehydro-ibogamine-18 $\beta$ -carboxylic acid, methyl ester  
**Synonym:** (+)-3,4-Didehydrocoronaridine  
**MF:** C<sub>21</sub>H<sub>24</sub>N<sub>2</sub>O<sub>2</sub>  
**FW:** 336.4  
**Purity:**  $\geq$ 98%  
**Stability:**  $\geq$ 2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 224, 283 nm



### Laboratory Procedures

For long term storage, we suggest that catharanthine be stored as supplied at -20°C. It should be stable for at least two years.

Catharanthine is supplied as a crystalline solid. A stock solution may be made by dissolving the catharanthine in the solvent of choice. Catharanthine is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of catharanthine in these solvents is approximately 30 mg/ml.

Catharanthine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, catharanthine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Catharanthine has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Vinca alkaloids are an important class of cell cycle-dependent antimitotic agents. Catharanthine is a precursor of the vinblastine and vincristine group of alkaloids found in the Vinca plant, *C. roseus* that have been used widely in chemotherapy regimens.<sup>1</sup> It is biologically active in synergy with similar indole alkaloids and can be used as starting material for the synthesis of vinblastine and vincristine.<sup>2,3</sup>

### References

1. Gupta, M.M., Singh, D.V., Tripathi, A.K., *et al.* Simultaneous determination of vincristine, vinblastine, catharanthine, and vindoline in leaves of *Catharanthus roseus* by high-performance liquid chromatography. *J. Chromatogr. Sci.* **43**(9), 450-453 (2005).
2. Pandya, P., Gupta, S.P., Pandav, K., *et al.* DNA binding studies of Vinca alkaloids: Experimental and computational evidence. *Nat. Prod. Commun.* **7**(3), 305-309 (2012).
3. Ziegler, J. and Facchini, P.J. Alkaloid biosynthesis: Metabolism and trafficking. *Annu. Rev. Plant Biol.* **59**, 735-769 (2008).

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#### SAFETY DATA

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