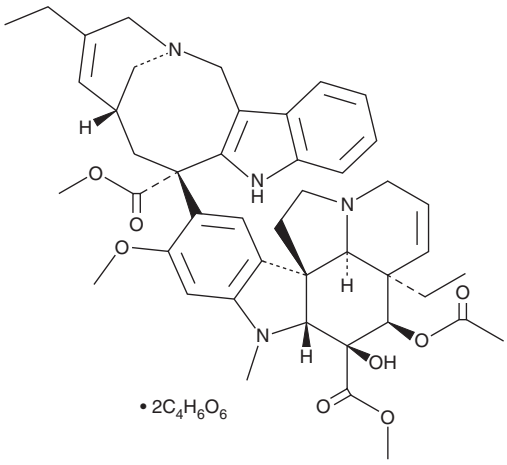
PRODUCT INFORMATION

Vinorelbine (tartrate)

Item No. 21262

CAS Registry No.:	125317-39-7
Formal Name:	(2β,3β,4β,5α,12R,19α)-4-(acetyloxy)-6,7-didehydro-15-[(2R,6R,8S)-4-ethyl-1,3,6,7,8,9-hexahydro-8-(methoxycarbonyl)-2,6-methano-2H-azecino[4,3-b]indol-8-yl]-3-hydroxy-16-methoxy-1-methyl-aspidospermidine-3-carboxylic acid, methyl ester, 2R,3R-dihydroxybutanedioate (1:2)
Synonym:	KW 2307
MF:	$C_{45}H_{54}N_4O_8 \bullet 2C_4H_6O_6$
FW:	1079.1
Purity:	≥95%
UV/Vis.:	λ_{max}: 214, 269, 313 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Vinorelbine (tartrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the vinorelbine (tartrate) in the solvent of choice, which should be purged with an inert gas. Vinorelbine (tartrate) is soluble in the organic solvent DMSO at a concentration of approximately 46 mg/ml. The solubility of vinorelbine (tartrate) in water is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Vinorelbine is a semisynthetic vinca alkaloid with microtubule destabilizing activity.[1,2] It inhibits microtubule polymerization and blocks mitosis at the metaphase/anaphase transition, preventing HeLa cell proliferation with an IC_{50} value of 1.25 nM.[3] In *in vitro* and *in vivo* models, vinorelbine has demonstrated additive effects when combined with other antimitotic agents to reduce the proliferation of various solid tumor, lymphoma, or lung cancer cell lines.[1]

References

1. Jordan, M.A. and Wilson, L. Microtubules as a target for anticancer drugs. *Nat. Rev. Cancer* **4(4)**, 253-265 (2004).
2. Kingston, D.G.I. Tubulin-interactive natural products as anticancer agents. *J. Nat. Prod.* **72(3)**, 507-515 (2009).
3. Ngan, V.K., Bellman, K., Hill, B.T., *et al*. Mechanism of mitotic block and inhibition of cell proliferation by the semisynthetic Vinca alkaloids vinorelbine and its newer derivative vinflunine. *Mol. Pharmacol.* **60(1)**, 225-232 (2001).

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