

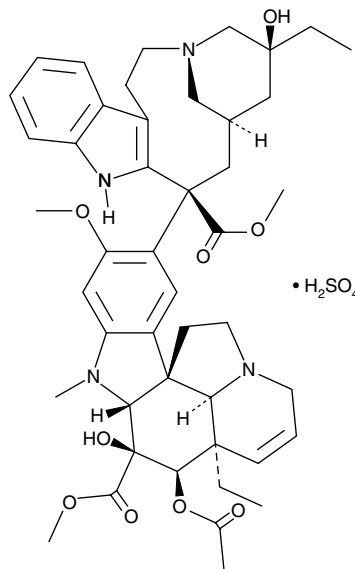
Product Information



Vinblastine (sulfate)

Item No. 11762

CAS Registry No.: 143-67-9
Formal Name: vincalkekoblastine, monosulfate
Synonyms: 29060LE, Alkaban-AQ, Exal, NSC 49842, Rozevinsulfate, Velban[®], Velsar, Vincalkekoblastinesulfate, VLB
MF: C₄₆H₅₈N₄O₉ • H₂SO₄
FW: 909.1
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 215, 267 nm



Laboratory Procedures

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

Vinblastine (sulfate) is supplied as a crystalline solid. A stock solution may be made by dissolving the vinblastine (sulfate) in the solvent of choice. Vinblastine (sulfate) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of vinblastine (sulfate) in these solvents is approximately 10 and 16 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of vinblastine (sulfate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of vinblastine (sulfate) in PBS, pH 7.2, is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Vinblastine, derived from *C. roseus*, also known as *V. rosea*, a Madagascar periwinkle, is an antimicrotubule drug used to treat certain cancers, including Hodgkin's lymphoma, non-small cell lung, breast, head and neck, and testicular cancer. Like its chemical analog vincristine, vinblastine binds tubulin, inhibiting the assembly of microtubules and causing M phase-specific cell cycle arrest by disrupting microtubule assembly and proper formation of the mitotic spindle. It has been shown to inhibit steady-state tubulin addition to microtubules with a K_i value of 0.18 μM, inhibit B16 melanoma cell proliferation with an IC₅₀ value of 1 nM, and produce complete inhibition of L-cell proliferation at 40 nM.¹ Vinblastine is reported to be an effective component of certain chemotherapy regimens, particularly when used with bleomycin and methotrexate in vinblastine, bleomycin, and methotrexate combination chemotherapy for Stage IA or IIA Hodgkin lymphomas.²

References

- Jordan, M.A., Himes, R.H., and Wilson, L. Comparison of the effects of vinblastine, vincristine, vindesine, and vinepidine on microtubule dynamics and cell proliferation *in vitro*. *Cancer Res.* **45(6)**, 2741-2747 (1985).
- Martinelli, G., Cocorocchio, E., Saletti, P.C., *et al.* Efficacy of vinblastine, bleomycin, methotrexate (VBM) combination chemotherapy with involved field radiotherapy in early stage (I-IIA) Hodgkin disease patients. *Leuk. Lymphoma* **44(11)**, 1919-1923 (2003).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/11762

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 03/19/2013

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com