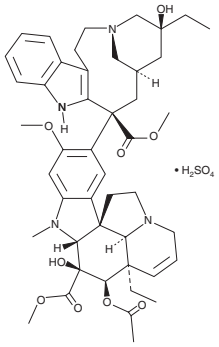
PRODUCT INFORMATION

Vinblastine (sulfate)

Item No. 11762

CAS Registry No.:	143-67-9
Formal Name:	vincaleukoblastine, monosulfate
Synonyms:	29060LE, Alkaban-AQ, Exal, NSC 49842, Rozevinsulfate, Velban®, Velsar, Vincaleukoblastinesulfate, VLB
MF:	$C_{46}H_{58}N_4O_9 \bullet H_2SO_4$
FW:	909.1
Purity:	≥95%
UV/Vis.:	λ_{max}: 215, 267 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

Vinblastine (sulfate) is supplied as a crystalline solid. A stock solution may be made by dissolving the vinblastine (sulfate) in the solvent of choice, which should be purged with an inert gas. Vinblastine (sulfate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of vinblastine (sulfate) in these solvents is approximately 10 and 6 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.

Description

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 IC_{50} 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

1. 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).
2. 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).

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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