



## Vinblastine Sulfate

## Data Sheet

**Catalog Number:** MC11100

**Product Type:** Small Molecule

**Bio-Activity:** Microtubule depolymerizer

**CAS #:** 143-67-9

**Research Categories:** Cell death, vesicles, cancer

**Solubility:** Soluble in DMSO (up to 25 mg/ml) or in Water (up to 50 mg/ml).

**Molecular Formula:** C46H58N4O9 · H2SO4

**Purity:** > 98%

**Molecular Weight:** 909.08

**Format:** Powder

**Ship Temp:** Ambient

**Storage:** -20°C

### Application Notes

#### Description/Data:

Semisynthetic alkaloidal anticancer agent. Induces cell cycle arrest at G2/M phase by inhibiting mitotic spindle formation<sup>1</sup>. Inhibits normal microtubule assembly and induces aberrant tubulin polymerization [1]. Induces apoptosis in a variety of cell lines [2]. Inhibits autophagosome maturation [3]. Inhibits palmitoylation of tubulin [4].

#### References:

- 1) Hamel et al. (1996), Antimitotic natural products and their interactions with tubulin; *Med. Res. Rev.*, 16 207
- 2) Tsukidate et al. (1993), Microtubule antagonists activate programmed cell death (apoptosis) in cultured rat hepatocytes; *Am. J. Pathol.*, 143 918
- 3) Satori et al. (2013), Describing autophagy via analysis of individual organelles by capillary electrophoresis with laser induced fluorescence detection; *Anal. Chem.*, 85 11391
- 4) Caron and Herwood (2007), Vinblastine, a chemotherapeutic drug, inhibits palmitoylation of tubulin in human leukemic lymphocytes; *Chemotherapy*, 53 51

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