



## Vinblastine Sulfate

## Data Sheet

<b>Catalog Number:</b>	MC11100	<b>Product Type:</b>	Small Molecule
<b>Bio-Activity:</b>	Microtubule depolymerizer	<b>CAS #:</b>	143-67-9
<b>Research Categories:</b>	Cell death, vesicles, cancer		
<b>Solubility:</b>	Soluble in DMSO (up to 25 mg/ml) or in Water (up to 50 mg/ml).	<b>Molecular Formula:</b>	C <sub>46</sub> H <sub>58</sub> N <sub>4</sub> O <sub>9</sub> · H <sub>2</sub> SO <sub>4</sub>
<b>Purity:</b>	> 98%	<b>Molecular Weight:</b>	909.08
<b>Format:</b>	Powder	<b>Ship Temp:</b>	Ambient
<b>Storage:</b>	-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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