**Vinorelbine**

**Cat. No.:** HY-12053  
**CAS No.:** 71486-22-1  
**Molecular Formula:** C_{45}H_{54}N_{4}O_{8}  
**Molecular Weight:** 778.93  
**Target:** Microtubule/Tubulin; Autophagy  
**Pathway:** Cell Cycle/DNA Damage; Cytoskeleton; Autophagy  
**Storage:** Please store the product under the recommended conditions in the COA.

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**BIOLOGICAL ACTIVITY**

<table>
<thead>
<tr>
<th>Description</th>
<th>Vinorelbine is an anti-mitotic agent which inhibits the proliferation of Hela cells with IC_{50} of 1.25 nM.</th>
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<tbody>
<tr>
<td><strong>In Vitro</strong></td>
<td>Vinorelbine (0.5-5 nM) inhibits cell proliferation by 50% (IC_{50}) at concentrations of 1.25 nM. At concentration of 8 nM vinorelbine, no cells are in anaphase. Vinorelbine time-dependently induces the p53 and p21^{WAF1/CIP1} expression in androgen-dependent (AD) and independent (AI) prostate cancer cell lines. Vinorelbine stimulates reporter genes in a concentration-dependent manner.</td>
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<td><strong>In Vivo</strong></td>
<td>After vinorelbine treatment, the first neutropenic episode occurred after the first (4 dogs), second (1), or sixth (1) vinorelbine treatment in the dogs. Vinorelbine is tolerated at a weekly interval in tumor-bearing cats, with an MTD of 11.5 mg/m^{2}.</td>
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**PROTOCOL**

| Animal Administration | As defined by the study, VRL1 is diluted in 0.9% NaCl to a concentration of 1.5 mg/mL, and given IV over 5 minutes. The intended treatment interval is 7 days for up to 4 treatments. After receiving 4 weekly doses, cats are eligible to continue VRL treatment every 2 weeks at the owner’s expense. MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

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**REFERENCES**
