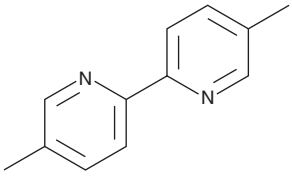
PRODUCT INFORMATION

Abametapir

Item No. 30684

CAS Registry No.:	1762-34-1
Formal Name:	5,5′-dimethyl-2,2′-bipyridine
MF:	$C_{12}H_{12}N_2$
FW:	184.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 244, 289 nm
Supplied as:	A 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

Abametapir is supplied as a solid. A stock solution may be made by dissolving the abametapir in the solvent of choice, which should be purged with an inert gas. Abametapir is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of abametapir in ethanol and DMF is approximately 15 mg/ml and approximately 10 mg/ml in DMSO.

Abametapir is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, abametapir should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Abametapir has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Abametapir is a building block and an insectide.[1-3] It has been used in the synthesis of lanthanide coordination complexes with antifungal activity against *C. albicans* and divalent vancomycin derivatives with antibacterial activity against vancomycin-resistant enterococci.[1,2] Abametapir is ovicidal to DDT- and permethrin-resistant head louse eggs (LC_{50}s = 0.108, 0.121, and 0.16% in isopropanol for 0-2-, 3-5-, and 6-8-day-old eggs, respectively).[3]

References

1. Zhou, M.-X., Ren, N., Zhang, J.-J., *et al.* Synthesis, crystal structure, thermal, luminescent property and antibacterial activity of lanthanide ternary complexes with p-chlorobenzoic acid and 5,5′-dimethyl-2,2′-bipyridine. *J. Mol. Struct.* **1200**, 127049 (2020).
2. Xing, B., Yu, C.-W., Ho, P.-L., *et al.* Multivalent antibiotics via metal complexes: Potent divalent vancomycins against vancomycin-resistant enterococci. *J. Med. Chem.* **46(23)**, 4904-4909 (2003).
3. Bowles, V.M., Yoon, K.S., Barker, S.C., *et al.* Ovicidal efficacy of abametapir against eggs of human head and body lice (Anoplura: *Pediculidae*). *J. Med. Entomol.* **54(1)**, 167-172 (2017).

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