

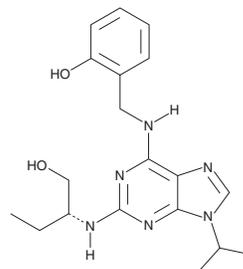
# PRODUCT INFORMATION



## Olomoucine II

Item No. 33223

**CAS Registry No.:** 500735-47-7  
**Formal Name:** 2-[[[2-[[[(1R)-1-(hydroxymethyl)propyl]amino]-9-(1-methylethyl)-9H-purin-6-yl]amino]methyl]-phenol  
**MF:** C<sub>19</sub>H<sub>26</sub>N<sub>6</sub>O<sub>2</sub>  
**FW:** 370.5  
**Purity:** ≥98%  
**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

Olomoucine II is supplied as a crystalline solid. A stock solution may be made by dissolving the olomoucine II in the solvent of choice, which should be purged with an inert gas. Olomoucine II is soluble in methanol and DMSO.

### Description

Olomoucine II is an inhibitor of cyclin-dependent kinases (CDKs; IC<sub>50</sub>s = 7.6, 0.1, 19.8, 0.45, and 0.06 μM for Cdk1, -2, -4, -7, and -9, respectively).<sup>1</sup> It is selective for CDKs over 10 additional kinases (IC<sub>50</sub>s = >100 μM for all) but does inhibit ERK2 (IC<sub>50</sub> = 32 μM) and the ATP-binding cassette transporter B1 (ABCB1; IC<sub>50</sub> = 6.4 μM).<sup>1,2</sup> Olomoucine II inhibits proliferation of a variety of cancer cells, including those expressing wild-type p53 or mutant p53 (mean IC<sub>50</sub>s = 7.4 and 10.1 μM, respectively), and it acts synergistically with daunorubicin (Item No. 14159) to inhibit proliferation of HCT-8 cells that endogenously express ABCB1. Olomoucine also inhibits replication of herpes simplex virus 1 (HSV-1), HSV-2, vaccinia virus, human adenovirus type 4 (Ad4), and human CMV (IC<sub>50</sub>s = 5, 4.7, 3.8, 2.4, and 3.2 μM, respectively) but not measles virus or influenza virus (IC<sub>50</sub>s = >20 μM for both).<sup>3</sup>

### References

1. Kryštof, V., McNae, I.W., Walkinshaw, M.D., *et al.* Antiproliferative activity of olomoucine II, a novel 2,6,9-trisubstituted purine cyclin-dependent kinase inhibitor. *Cell Mol. Life Sci.* **62(15)**, 1763-1771 (2005).
2. Cihalova, D., Hofman, J., Ceckova, M., *et al.* Purvalanol A, olomoucine II and roscovitine inhibit ABCB1 transporter and synergistically potentiate cytotoxic effects of daunorubicin in vitro. *PLoS One* **8(12)**, e83467 (2013).
3. Holcakova, J., Tomasec, P., Bugert, J.J., *et al.* The inhibitor of cyclin-dependent kinases, olomoucine II, exhibits potent antiviral properties. *Antivir. Chem. Chemother.* **20(3)**, 133-142 (2010).

#### 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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