

Olomoucine (high purity)

CDK/cyclin inhibitor

Olomoucine is a purine derivative which acts as a potent and selective inhibitor of CDK1 (p34^{cdc2})/cyclin B and related kinases. It acts by competing for the ATP binding domain of the kinase. Of 35 protein kinases tested, olomoucine inhibited p33^{CDK2}/cyclin A, p33^{CDK2}/cyclin E, p34^{cdc2}/cyclin B, p33^{CDK5}/p35 and erk1 with IC₅₀ of 7, 7, 7, 3 and 25μM respectively. The related kinases p34^{CDK4}/cyclin D and p40^{CDK6}/cyclin D3 were not inhibited or were less sensitive to olomoucine, IC₅₀ > 1000 and 250μM respectively. PKC, PKA, PKG, CaM kinase II, MLC kinase, CK2, EGFR tyrosine kinase, p56^{lck}, p56^{lyn}, p60^{c-src}, v-abl and insulin receptor tyrosine kinase are not inhibited or are weakly inhibited at 1mM. It delays mouse oocyte maturation and inhibits the growth of a variety of human cell lines including Rhabdomyosarcoma cell line Rh1, Rh18, Rh28 and Rh30; MCF-7, KB-3-1 and their adriamycin-resistant counterparts (IC₅₀=18-86μM). It inhibits DNA synthesis in interleukin-2-stimulated T lymphocytes and triggers a G1 arrest similar to interleukin-2 deprivation. Can be used to synchronize cells in G1. Triggers apoptosis in target tumor cells *in vitro* and *in vivo* and in maturing cerebellar granule neurons. N⁹-Isopropyl-olomoucine and the negative control Iso-olomoucine are also available.

Citations: 8

[View Online »](#)

Ordering Information

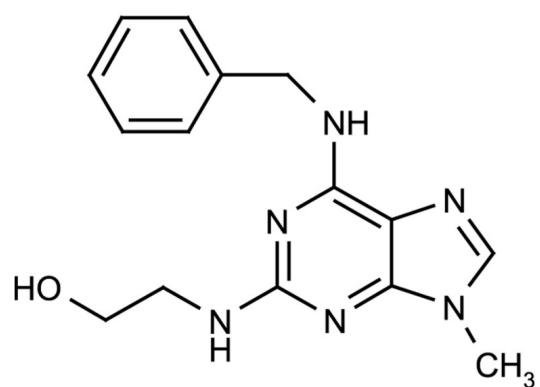
[Order Online »](#)

ALX-350-013-M025

25mg

Manuals, SDS & CofA

[View Online »](#)



Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	6-Benzylamino-2-(2-hydroxyethylamino)-9-methylpurine
Appearance	White to off-white solid.
CAS	101622-51-9
Couple Target	CDK, Erk
Couple Type	Inhibitor
Formula	$C_{15}H_{18}N_6O$
MW	298.4
Purity	≥98%
Solubility	Soluble in DMSO (32mg/ml), 100% ethanol (7mg/ml), or methanol.

Last modified: May 29, 2024



ENZO LIFE SCIENCES,
INC.
Phone: 800.942.0430
[info-
usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office
ENZO LIFE SCIENCES
(ELS) AG
Phone: +41 61 926 8989
[info-
eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands
& Luxembourg
Phone: +32 3 466 0420
[info-
be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

France
Phone: +33 472 440 655
[info-
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany
Phone: +49 7621 5500 526
[info-
de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland
Phone (UK customers):
0845 601 1488
Phone: +44 1392 825900
[info-
uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)