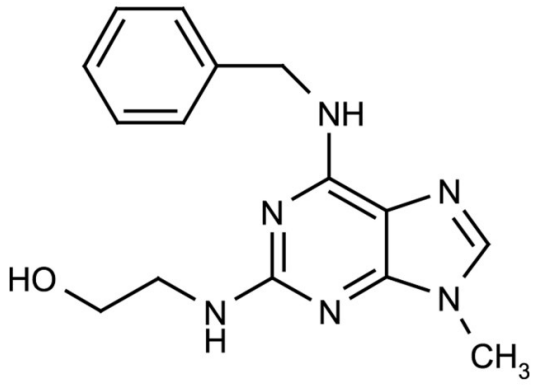
Olomoucine (high purity)

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 IC_{50} 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, IC_{50} > 1000 and 250μM respectively. PKC, PKA, PKG, CaM kinase II, MLC kinase, CK2, EGFR tyrosine kinase, $p56^{lck}$, $p56^{lyn}$, $p60^{c\text{-}src}$, 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 (IC_{50}=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. N^9-Isopropyl-olomoucine and the negative control Iso-olomoucine are also available.

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NH
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CH3

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.

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ENZO LIFE SCIENCES, INC.
Phone: 800.942.0430
info-usa@enzolifesciences.com

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

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

France
Phone: +33 472 440 655
info-fr@enzolifesciences.com

Germany
Phone: +49 7621 5500 526
info-de@enzolifesciences.com

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

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