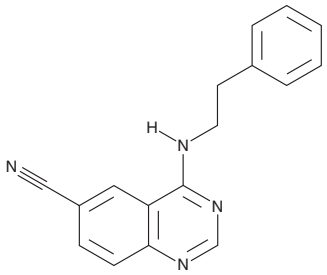
PRODUCT INFORMATION

Senexin A

Item No. 30291



CAS Registry No.:	1366002-50-7
Formal Name:	4-[(2-phenylethyl)amino]-6-quinazolinecarbonitrile
MF:	$C_{17}H_{14}N_4$
FW:	274.3
Purity:	≥98%
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

Senexin A is supplied as a solid. A stock solution may be made by dissolving the senexin A in the solvent of choice, which should be purged with an inert gas. Senexin A is soluble in organic solvents such as acetonitrile and DMSO.

Description

Senexin A is an inhibitor of cyclin-dependent kinase 8 (Cdk8; IC_{50} = 0.28 µM).[1] It also inhibits cyclin-dependent kinase inhibitor $p21^{WAF1}$-induced reporter expression in reporter assay using HT-1080 p21-9 cells (IC_{50} = 0.68 µM). Senexin A (2.5 µM) prevents 17β-estradiol-induced increases in expression of mRNA encoding gene regulated in breast cancer 1 (GREB1), chemokine (C-X-C motif) ligand 12 (CXCL12), and trefoil factor 1 (TFF1) in estrogen-deprived MCF-7, BT474, and T47D breast cancer cells.[2] It decreases intracellular and extracellular viral RNA, the number of infectious particles, as well as dengue virus-induced increases in the levels of mRNA encoding LC3-II in dengue virus-infected Huh7 cells when used at a concentration of 25 µM.[3] Senexin A (12.5 µM) reduces mitochondrial oxygen consumption rate (OCR) and increases glycolysis in uninfected and dengue virus-infected Huh7 cells.

References

1. Porter, D.C., Farmaki, E., Altilia, S., *et al.* Cyclin-dependent kinase 8 mediates chemotherapy-induced tumor-promoting paracrine activities. *Proc. Natl. Acad. Sci. USA* **109(34)**, 13799-13804 (2012).
2. McDermott, M.S., Chumanevich, A.A., Lim, C.-U., *et al.* Inhibition of CDK8 mediator kinase suppresses estrogen dependent transcription and the growth of estrogen receptor positive breast cancer. *Oncotarget* **8(8)**, 12558-12575 (2017).
3. Butler, M., Chotiwan, N., Brewster, C.D., *et al.* Cyclin-dependent kinases 8 and 19 regulate host cell metabolism during dengue virus serotype 2 infection. *Viruses* **12(6)**, 654 (2020).

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