

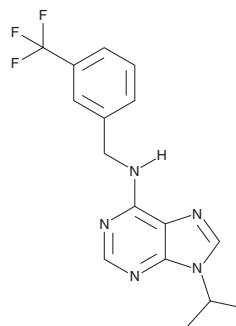
PRODUCT INFORMATION



Longdaysin

Item No. 36706

CAS Registry No.: 1353867-91-0
Formal Name: 9-(1-methylethyl)-N-[[3-(trifluoromethyl)phenyl]methyl]-9H-purin-6-amine
MF: C₁₆H₁₆F₃N₅
FW: 335.3
Purity: ≥98%
UV/Vis.: λ_{max}: 211, 273 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

Longdaysin is supplied as a solid. A stock solution may be made by dissolving the longdaysin in the solvent of choice, which should be purged with an inert gas. Longdaysin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of longdaysin in these solvents is approximately 10, 20, and 30 mg/ml, respectively.

Description

Longdaysin is an inhibitor of casein kinase 1δ (CK1δ) and CK1α (IC₅₀ = 12 μM for both).¹ It also inhibits cyclin-dependent kinase 2 (Cdk2), Cdk7, MAPK, and MAP3K (IC₅₀s = 13, 32, 59, and 92 μM, respectively). Longdaysin increases the circadian period of U2OS cells by one and five hours when used at concentrations of 0.39 and 3.4 μM, respectively.² It inhibits Wnt-signaling induced by Wnt3A-containing conditioned medium in HEK293 cells and reduces levels of active β-catenin in HEK293 cells expressing CK1δ or CK1ε. Longdaysin (10 and 25 μM) reduces colony formation, as well as cell migration and invasion, by Hs 578T and MDA-MB-231 breast cancer cells. *In vivo*, longdaysin (5 mg/kg) reduces tumor volume in an MDA-MB-231 mouse xenograft model.

References

1. Lee, J.W., Hirota, T., Ono, D., *et al.* Chemical control of mammalian circadian behavior through dual inhibition of casein kinase 1α and δ. *J. Med. Chem.* **62**(4), 1989-1998 (2019).
2. Xiong, Y., Zhou, L., Su, Z., *et al.* Longdaysin inhibits Wnt/β-catenin signaling and exhibits antitumor activity against breast cancer. *Onco Targets Ther.* **12**, 993-1005 (2019).

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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