

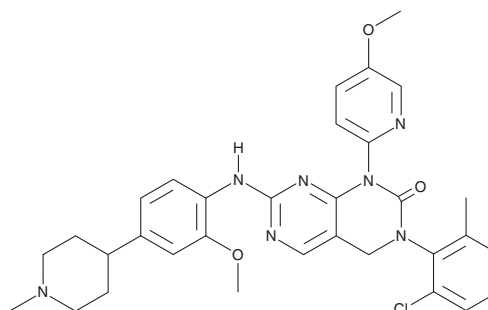
PRODUCT INFORMATION



YKL-05-099

Item No. 36116

CAS Registry No.: 1936529-65-5
Formal Name: 3-(2-chloro-6-methylphenyl)-3,4-dihydro-7-[[2-methoxy-4-(1-methyl-4-piperidinyl)phenyl]amino]-1-(5-methoxy-2-pyridinyl)-pyrimido[4,5-d]pyrimidin-2(1H)-one
MF: C₃₂H₃₄ClN₇O₃
FW: 600.1
Purity: ≥98%
UV/Vis.: λ_{max}: 276, 302 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

YKL-05-099 is supplied as a solid. A stock solution may be made by dissolving the YKL-05-099 in the solvent of choice, which should be purged with an inert gas. YKL-05-099 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of YKL-05-099 in DMF is approximately 5 mg/ml and approximately 10 mg/ml in ethanol and DMSO.

Description

YKL-05-099 is an inhibitor of salt-inducible kinase 2 (SIK2; IC₅₀ = 0.04 μM for the human enzyme).¹ It is selective for SIK2 over a panel of 141 kinases at 1 μM but also inhibits 14 other kinases, including SIK3, Ephrin receptors, and Src. YKL-05-099 increases IL-10 production in zymosan A-induced isolated mouse bone marrow-derived dendritic cells (BMDCs; EC₅₀ = 0.46 μM), as well as decreases TNF-α, IL-6, and IL-12p40 levels and increases IL-1β levels in LPS-stimulated BMDCs when used at a concentration of 1 μM. It inhibits the proliferation of MOLM-13 leukemia cells (IC₅₀ = 0.24 μM).² *In vivo*, YKL-05-099 (10 μmol/kg) increases the bone formation rate and number of femoral osteoblasts and decreases the number of femoral osteoclasts in mice.³

References

1. Sundberg, T.B., Liang, Y., Wu, H., *et al.* Development of chemical probes for investigation of salt-inducible kinase function *in vivo*. *ACS Chem. Biol.* **11**(8), 2105-2111 (2016).
2. Tarumoto, Y., Lin, S., Wang, J., *et al.* Salt-inducible kinase inhibition suppresses acute myeloid leukemia progression *in vivo*. *Blood* **135**(1), 56-70 (2020).
3. Wein, M.N., Liang, Y., Goransson, O., *et al.* SIKs control osteocyte responses to parathyroid hormone. *Nat. Commun.* **7**, 13176 (2016).

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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