

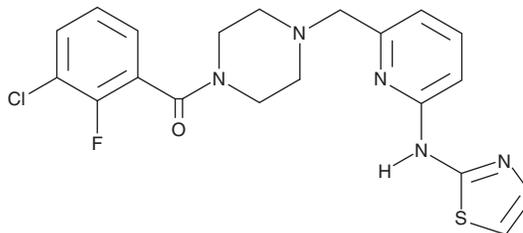
PRODUCT INFORMATION



MK-8745

Item No. 26190

CAS Registry No.: 885325-71-3
Formal Name: (3-chloro-2-fluorophenyl)
[4-[[6-(2-thiazolylamino)-2-
pyridinyl]methyl]-1-piperazinyl]-
methanone
MF: C₂₀H₁₉ClFN₅OS
FW: 431.9
Purity: ≥98%
UV/Vis.: λ_{max}: 274, 318 nm
Supplied as: A crystalline 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

MK-8745 is supplied as a crystalline solid. A stock solution may be made by dissolving the MK-8745 in the solvent of choice, which should be purged with an inert gas. MK-8745 is soluble in the organic solvent DMSO at a concentration of approximately 20 mg/ml.

Description

MK-8745 is an Aurora A kinase inhibitor (IC₅₀ = 0.6 nM) that is selective for Aurora A over Aurora B kinase (IC₅₀ = 280 nM).¹ It induces cell cycle arrest at the G₂/M phase in non-Hodgkin lymphoma cells when used at a concentration of 1 μM.² MK-8745 (5 μM) induces apoptosis and polyploidy in p53-positive and -negative HCT116 colon cancer cells, respectively.¹ It also induces apoptosis in sarcoma, melanoma, and pancreatic cancer cell lines in a p53-dependent manner when used at a concentration of 5 μM.

References

1. Nair, J.S., Ho, A.L., and Schwartz, G.K. The induction of polyploidy or apoptosis by the Aurora A kinase inhibitor MK8745 is p53-dependent. *Cell Cycle* **11**(4), 807-817 (2012).
2. Chowdhury, A., Chowdhury, S., and Tsai, M.Y. A novel Aurora kinase A inhibitor MK-8745 predicts TPX2 as a therapeutic biomarker in non-Hodgkin lymphoma cell lines. *Leuk. Lymphoma* **53**(3), 462-471 (2012).

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.

WARRANTY AND LIMITATION OF REMEDY

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