

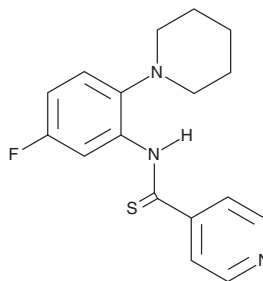
PRODUCT INFORMATION



FIT-039

Item No. 36555

CAS Registry No.: 1113044-49-7
Formal Name: N-[5-fluoro-2-(1-piperidiny)phenyl]-4-pyridinecarbothioamide
MF: C₁₇H₁₈FN₃S
FW: 315.4
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

FIT-039 is supplied as a solid. A stock solution may be made by dissolving the FIT-039 in the solvent of choice, which should be purged with an inert gas. FIT-039 is soluble in the organic solvent DMSO at a concentration of approximately 10 mM.

Description

FIT-039 is an inhibitor of cyclin-dependent kinase 9 (Cdk9; IC₅₀ = 5.8 μM for Cdk9/cyclin T1).¹ It is selective for Cdk9/cyclin T1 over Cdk4/cyclin D3 at 30 μM and Cdk2/cyclin A2, Cdk2/cyclin E1, Cdk5/p25, Cdk6/cyclin D3, and Cdk7/cyclin/MAT1 at 10 μM but also inhibits GSK3α, GSK3β, PKN1, haspin, p70S6K, DYRK1B, DYRK3, and IRR at 10 μM. FIT-039 inhibits DNA replication of herpes simplex virus 1 (HSV-1) in HeLa cells (IC₅₀ = 0.69 μM). Topical application of FIT-039 (1.25-10% w/w) reduces skin lesions and improves survival in HSV-1-infected mice. FIT-039 (300 mg/kg) also reduces tumor growth in a human papillomavirus (HPV) type 16-positive Ca Ski cervical cancer mouse xenograft model.²

References

1. Yamamoto, M., Onogi, H., Kii, I., *et al.* CDK9 inhibitor FIT-039 prevents replication of multiple DNA viruses. *J. Clin. Invest.* **124(8)**, 3479-3488 (2014).
2. Ajiro, M., Sakai, H., Onogi, H., *et al.* CDK9 inhibitor FIT-039 suppresses viral oncogenes E6 and E7 and has a therapeutic effect on HPV-induced neoplasia. *Clin. Cancer Res.* **24(18)**, 4518-4528 (2018).

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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