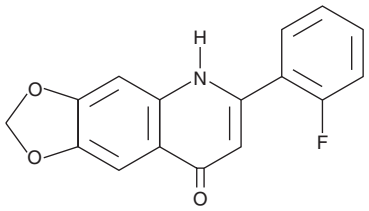
PRODUCT INFORMATION

CHM-1

Item No. 27647

CAS Registry No.:	154554-41-3
Formal Name:	6-(2-fluorophenyl)-1,3-dioxolo[4,5-g]quinolin-8(5H)-one
Synonym:	NSC 656158
MF:	$C_{16}H_{10}FNO_3$
FW:	283.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 228, 256, 326 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

CHM-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the CHM-1 in the solvent of choice, which should be purged with an inert gas. CHM-1 is soluble in DMSO.

Description

CHM-1 is an inhibitor of tubulin polymerization (IC_{50} = 0.68 µM) with anticancer activity.[1] It inhibits colchicine (Item No. 9000760) tubulin binding by 39% when used at a concentration of 5 µM. CHM-1 inhibits the growth of K562, NCI H226, HCT116, OVCAR-3, RXF 393L, SK-MEL-5, SF-268, and SF-295 cancer cells (mean GI_{50} = 130 nM). It induces apoptosis in HA22T hepatocellular carcinoma cells in a concentration-dependent manner.[2] CHM-1 (10 mg/kg) reduces tumor volume and increases survival in an HA22T mouse xenograft model.

References

1. Xia, Y., Yang, Z.-Y., Xia, P., *et al.* Antitumor agents. 211. Fluorinated 2-phenyl-4-quinolone derivatives as antimitotic antitumor agents. *J. Med. Chem.* **44(23)**, 3932-3936 (2001).
2. Wang, S.-W., Pan, S.-L., Huang, Y.-C., *et al.* CHM-1, a novel synthetic quinolone with potent and selective antimitotic antitumor activity against human hepatocellular carcinoma *in vitro* and *in vivo*. *Mol. Cancer Ther.* **7(2)**, 350-360 (2008).

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