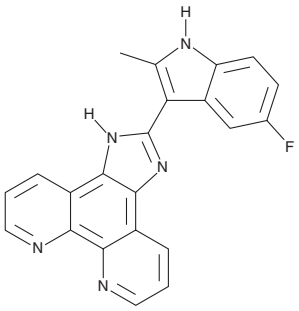
PRODUCT INFORMATION

LOR253

Item No. 36773

CAS Registry No.:	916151-99-0
Formal Name:	2-(5-fluoro-2-methyl-1H-indol-3-yl)-1H-imidazo[4,5-f][1,10]phenanthroline
Synonym:	APTO-253
MF:	$C_{22}H_{14}FN_5$
FW:	367.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 230, 262, 284 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

LOR253 is supplied as a solid. A stock solution may be made by dissolving the LOR253 in the solvent of choice, which should be purged with an inert gas. LOR253 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of LOR253 in these solvents is approximately 2 mg/ml.

Description

LOR253 is an activator of the transcription factor Kruppel-like factor 4 (KLF4).[1] It increases levels of KLF4 and induces apoptosis in HCC1187, HCC38, and MDA-MB-468 cancer cells when used at concentrations of 5 and 10 µM. It is cytotoxic in a panel of 16 acute myeloid leukemia (AML) and lymphoma cell lines (IC_{50}s = 0.057-1.75 µM) and induces cell cycle arrest at the G_0/G_1 phase in MV4-11, KG-1, and EoL-1 cells.[2] LOR253 (1 mg/kg) accelerates wound healing, as well as increases plasma levels of KLF4 and wound site myeloid-derived suppressor cell (MDSC) accumulation, in an *ob/ob* mouse model of diabetic wound healing.[3]

References

1. Nakajima, W., Miyazaki, K., Asano, Y., *et al.* Krüppel-like factor 4 and its activator APTO-253 induce NOXA-mediated, p53-independent apoptosis in triple-negative breast cancer cells. *Genes (Basel)* **12(4)**, 539 (2021).
2. Local, A., Zhang, H., Benbatoul, K.D., *et al.* APTO-253 stabilizes G-quadruplex DNA, inhibits MYC expression, and induces DNA damage in acute myeloid leukemia cells. *Mol. Cancer Ther.* **17(6)**, 1177-1186 (2018).
3. Yang, X., Mathis, B.J., Huang, Y., *et al.* KLF4 promotes diabetic chronic wound healing by suppressing Th17 cell differentiation in an MDSC-dependent manner. *J. Diabetes Res.* 7945117 (2021).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM