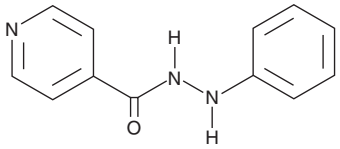
PRODUCT INFORMATION

PluriSln 1

Item No. 16161

CAS Registry No.:	91396-88-2
Formal Name:	2-phenylhydrazide-4-pyridinecarboxylic acid
Synonyms:	N'-phenyl-hydrazine-Isonicotinic acid, NSC 14613
MF:	$C_{12}H_{11}N_3O$
FW:	213.2
Purity:	≥95%
UV/Vis.:	λ_{max}: 235, 271 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

PluriSln 1 is supplied as a crystalline solid. A stock solution may be made by dissolving the PluriSln 1 in the solvent of choice, which should be purged with an inert gas. PluriSln 1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PluriSln 1 in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

PluriSln 1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PluriSln 1 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PluriSln 1 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

PluriSln 1 is an N-acyl phenylhydrazine derivative that inhibits stearoyl-CoA desaturase, a key enzyme for lipid metabolism that is expressed in human pluripotent stem cells (hPSCs).[1] PluriSln 1 can selectively induce ER stress, attenuate protein synthesis, and induce apoptosis in hPSCs (EC_{50} = 2 µM) while sparing progenitor and differentiated cells.[1] Because PluriSln 1 can selectively eliminate undifferentiated hPSCs, it was developed as a strategy to prevent tumorigenic risk from residual undifferentiated cells used during stem cell therapy. In immunocompromised mice, PluriSln 1 has been shown to effectively prevent teratoma formation from undifferentiated hPSCs.[1]

References

1. Ben-David, U., Gan, Q.-F., Golan-Lev, T., *et al*. Selective elimination of human pluripotent stem cells by an oleate synthesis inhibitor discovered in a high-throughput screen. *Cell Stem Cell* **12(2)**, 167-179 (2013).

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