

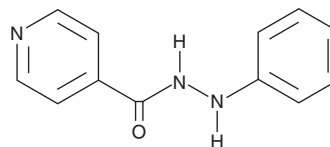
PRODUCT INFORMATION



PluriSIn 1

Item No. 16161

CAS Registry No.: 91396-88-2
Formal Name: 2-phenylhydrazide-4-pyridinecarboxylic acid
Synonyms: N¹-phenyl-hydrazine-Isonicotinic acid,
NSC 14613
MF: C₁₂H₁₁N₃O
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

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

PluriSIn 1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PluriSIn 1 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PluriSIn 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

PluriSIn 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 PluriSIn 1 can selectively induce ER stress, attenuate protein synthesis, and induce apoptosis in hPSCs (EC₅₀ = 2 μM) while sparing progenitor and differentiated cells.¹ Because PluriSIn 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, PluriSIn 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).

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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