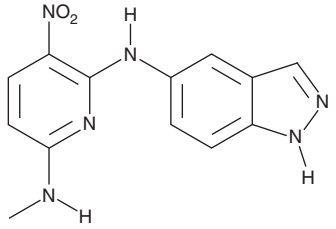
PRODUCT INFORMATION

KRIBB11

Item No. 9002528

CAS Registry No.:	342639-96-7
Formal Name:	N^2-1H-indazol-5-yl-N^6-methyl-3-nitro-2,6-pyridinediamine
MF:	$C_{13}H_{12}N_6O_2$
FW:	284.3
Purity:	≥95%
UV/Vis.:	λ_{max}: 242, 294, 418 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

KRIBB11 is supplied as a crystalline solid. A stock solution may be made by dissolving the KRIBB11 in the solvent of choice. KRIBB11 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of KRIBB11 in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

KRIBB11 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, KRIBB11 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. KRIBB11 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

KRIBB11 is an inhibitor of heat shock factor 1 (Hsf1) with an IC_{50} value of 1.2 µM in a luciferase reporter assay.[1] It blocks heat shock-induced Hsp70, Hsp40, and Hsp27 mRNA expression and down-regulates protein expression of the Hsf1 target proteins Hsp70 and Hsp27 in HCT116 cells in a dose-dependent manner. KRIBB11 specifically binds to Hsf1 over other Hsf1-associated proteins, lacking activity at heat shock protein 90 (Hsp90), Hsf2, and Cdk9 in an *in vitro* pull-down assay. It inhibits growth of HCT116, Mia-PaCa-2, SW620, HT-29, A549, and MDA-MB-231 cancer cell lines (IC_{50}s = 3-8 µM) *via* induction of cell cycle arrest at the G_2/M phase and apoptosis. *In vivo*, administration of KRIBB11 decreases tumor growth in a mouse HCT116 xenograft model. KRIB11 administration also attenuates dengue virus progression and reduces mortality without affecting bodyweight in infected mice.[2]

References

1. Yoon, Y.J., Kim, J.A., Shin, K.D., *et al*. KRIBB11 inhibits HSP70 synthesis through inhibition of heat shock factor 1 function by impairing the recruitment of positive transcription elongation factor b to the hsp70 promoter. *J. Biol. Chem.* **286(3)**, 1737-1747 (2011).
2. Tsai, T.T., Chen, C.L., Tsai, C.C., *et al*. Targeting heat shock factor 1 as an antiviral strategy against dengue virus replication *in vitro* and *in vivo*. *Antiviral Res.* **145**, 44-53 (2017).

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.

WARRANTY AND LIMITATION OF REMEDY
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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