Print Date: Oct 12th 2022

Certificate of Analysis

www.tocris.com

Product Name: **Verdinexor** **Catalog No.: 7569** **Batch No.: 1**

CAS Number: 1392136-43-4

IUPAC Name: (2*Z*)-3-[3-[3,5-Bis(trifluoromethyl)phenyl]-1*H*-1,2,4-triazol-1-yl]-2-propenoic acid 2-(2-pyridinyl)hydrazide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{18}H_{12}F_6N_6O$

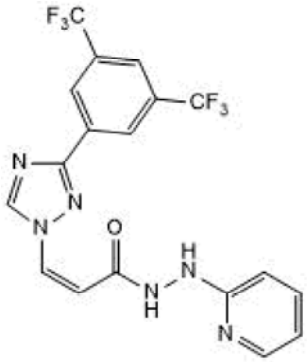
Batch Molecular Weight: 442.32

Physical Appearance: Off White solid

Solubility: DMSO to 100 mM
ethanol to 5 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100.0% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	48.88	2.73	19
Found	48.93	2.61	19

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Description:

Verdinexor is a selective exportin-1 (XPO1/CRM1) inhibitor. It potently inhibits influenza virus ribonucleoprotein (vRNP) export by disrupting XPO1-NEP binding and the replication of influenza virus A and B strains in vitro, including H1N1, H5N1 and H7N9 (IC_{50} values in the range 40 - 420 nM range). Verdinexor limits influenza A virus spread in mouse lung in vivo. In neuroblastoma, verdinexor suppresses cell proliferation and induces cell apoptosis. It also induces P53 nuclear accumulation and induces G_0/G_1 phase cell cycle arrest by activating P53 function. Verdinexor inhibits tumor growth in in vivo mouse models. Orally bioavailable. Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

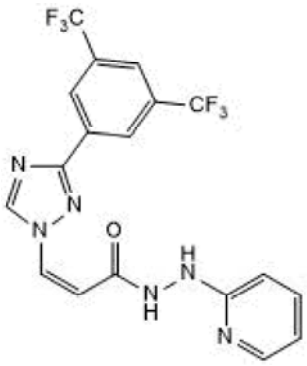
Batch Molecular Formula: $C_{18}H_{12}F_6N_6O$

Batch Molecular Weight: 442.32

Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 5 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Pan (2021) XPO1/CRM1 is a promising prognostic indicator for neuroblastoma and represented a therapeutic target by selective inhibitor verdinexor. J.Exp.Clin.Cancer Res. ***40*** 255. PMID: 34384466.

Perwitasari *et al* (2014) Verdinexor, a novel selective inhibitor of nuclear export, reduces influenza a virus replication *in vitro* and in vivo J.Virol. ***88*** 10228. PMID: 24965445.