bio-techne
TOCRIS

Print Date: Oct 11th 2024

Certificate of Analysis

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Product Name: **MS 28** **Catalog No.: 8076** **Batch No.: 1**

CAS Number: 2229974-73-4

IUPAC Name: (2*S*,4*R*)-1-((*S*)-2-(7-(4-(6-((6-Acetyl-8-cyclopentyl-5-methyl-7-oxo-7,8-dihydropyrido[2,3-*d*]pyrimidin-2-yl)amino) pyridin-3-yl)piperazin-1-yl)-7-oxoheptanamido)-3,3-dimethylbutanoyl)-4-hydroxy-*N*-(4-(4-methylthiazol-5-yl)benzyl) pyrrolidine-2-carboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{53}H_{67}N_{11}O_7S.¾H_2O$

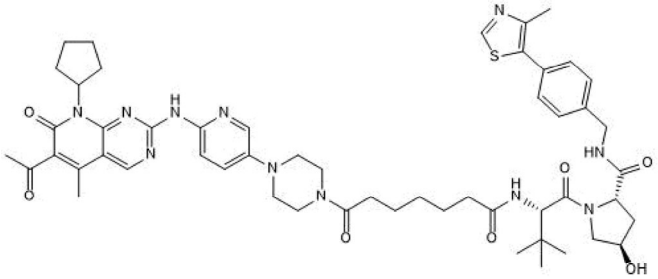
Batch Molecular Weight: 1015.76

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.67	6.8	15.17
Found	61.91	6.82	14.92

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Description:

MS 28 is a cyclinD1 Degrader (PROTAC®) (DC_{50} = 950 nM; D_{max} = 90% in vitro). Also degrades CDK4, CDK6 and cyclin D3 after 4 hours. Degrades cyclin D1 and cyclin D3 by recruiting the CDK4/6 as a 'bridge'. Comprises a CDK4/6 binding moiety joined by a linker to a VHL ligand. Suppresses NCI-H2110 and Calu-1 cancer cell growth at 1 µM. PROTAC® is a registered trademark of Arvinas Operations, Inc., and is used under license.

Physical and Chemical Properties:

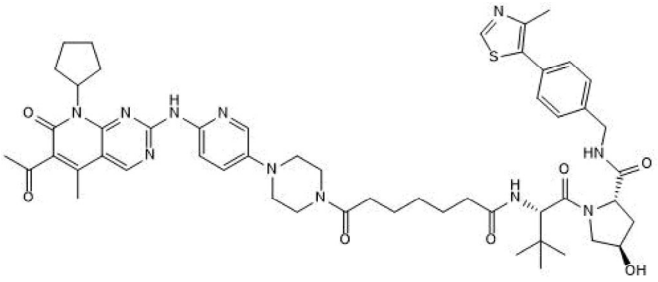
Batch Molecular Formula: $C_{53}H_{67}N_{11}O_7S.¾H_2O$

Batch Molecular Weight: 1015.76

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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.

Licensing Information:

Sold under license from Icahn School of Medicine at Mount Sinai.

References:

Xiong *et al* (2022) Bridged proteolysis targeting chimera (PROTAC) enables degradation of undruggable targets. J.Am.Chem.Soc. ***144*** 22622. PMID: 36448571.