

PRODUCT INFORMATION



MS28

Item No. 43040

CAS Registry No.: 2229974-73-4

Formal Name: (4R)-N-[7-[4-[6-[(6-acetyl-8-cyclopentyl-7,8-dihydro-5-methyl-7-oxopyrido[2,3-d]pyrimidin-2-yl)amino]-3-pyridinyl]-1-piperazinyl]-1,7-dioxoheptyl]-3-methyl-L-valyl-4-hydroxy-N-[[4-(4-methyl-5-thiazolyl)phenyl]methyl]-L-prolinamide

Synonym: XY028-133

MF: C₅₃H₆₇N₁₁O₇S

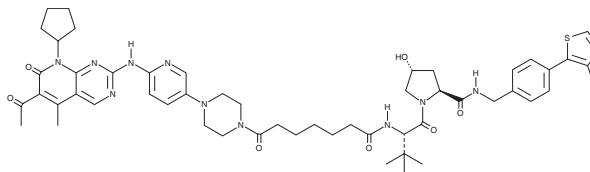
FW: 1,002.2

Purity: ≥95%

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

MS28 is supplied as a crystalline solid. A stock solution may be made by dissolving the MS28 in the solvent of choice, which should be purged with an inert gas. MS28 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

MS28 is a bridged proteolysis-targeting chimera (PROTAC) that contains palbociclib (PD 0332991; Item No. 16273) conjugated to VHL-1 (VHL ligand 1; Item No. 21591).¹ It induces the degradation of cyclin D1 with a half-maximal degradation concentration (DC₅₀) value of 950 nM in Calu-1 cells. MS28 binds to cyclin-dependent kinase 4 (Cdk4) and Cdk6 (K_ds = 365 and 48 nM, respectively). It selectively induces the degradation of cyclin D1 and cyclin D3 over a panel of 57 additional kinases at 1 μM but, to a lesser extent, it does induce the degradation of Cdk4 and Cdk6 when used at a concentration of 3 μM. MS28 inhibits the growth of Calu-1 and NCI H2110 lung cancer cells (GI₅₀s = 1 and 0.75 μM, respectively).

Reference

1. Xiong, Y., Zhong, Y., Yim, H., *et al.* Bridged proteolysis targeting chimera (PROTAC) enables degradation of undruggable targets. *J. Am. Chem. Soc.* **144**(49), 22622-22632 (2022).

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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