Product Data Sheet

Product Name: WX-02-43
Cat. No.: GC79182

Chemical Properties

Cas. No.	2929223-36-7		
Formula	$C_{26}H_{25}N_3O_5$	M.Wt	459.49
Solubility	DMSO: 50 mg/mL (108.82 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

WX-02-43 is a weak covalent inhibitor of SF3B1, and is the (1S,3R) enantiomer of WX-02-23. WX-

Product Data Sheet

02-43 cannot effectively covalently modify the C258 site in the DNA-binding domain of FOXA1, and its inhibitory activity against SF3B1 is also weaker than that of WX-02-23. WX-02-43 serves as a negative control probe that fails to remodel the chromatin binding pattern and transcriptional activity of FOXA1. WX-02-43 can be used in studies on cancers such as prostate cancer to verify the specific effects of WX-02-23 on FOXA1 and SF3B1 targets [1] [2] [3].

In Vitro, WX-02-43 (20 μM; 3 h) does not bind to FOXA1C258, remodel the chromatin binding of FOXA1, or alter chromatin accessibility in human prostate cancer cell line 22Rv1[1]. WX-02-43 (0.01-100 μM; 72 h) inhibits the growth of parental and C1111S-SF3B1 22Rv1 human prostate cancer cells with comparable potency, with GI50 values of 9.5 μM and 12.2 μM, respectively[1]. WX-02-43 exhibits 4-fold weaker antiproliferative activity than WX-02-23 in human cells[2]. WX-02-43 (5 μM; 2 h) does not act on SF3B1 in a stereoselective manner in human prostate cancer cell line 22Rv1 under the tested conditions[3].

References:
[1]. Won SJ, et al. Redirecting the pioneering function of FOXA1 with covalent small molecules. Mol Cell. 2024;84(21):4125-4141.e10.
[2]. Ng B W L, et al. Discovery of chemical probes that perturb protein complexes using size exclusion chromatography and chemical proteomics[J]. Molecular Cell, 2023, 83(10): 1544-1546.
[3]. Lazear MR, et al. Proteomic discovery of chemical probes that perturb protein complexes in human cells. Mol Cell. 2023;83(10):1725-1742.e12.