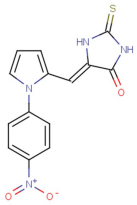
Data Sheet (Cat.No.T15677)

TargetMol
A DRUG SCREENING EXPERT

KY1220

Chemical Properties



CAS No.:	292168-79-7
Formula:	C14H10N4O3S
Molecular Weight:	314.32
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	KY1220 destabilizes both β-catenin and Ras by targeting the Wnt/β-catenin pathway. It has an IC50 of 2.1 μM in HEK293 reporter cells.
Targets(IC_{50})	HEK293 reporter cells: 2.1 μM
In vitro	KY1220 accelerates the degradation rates of both β-catenin and Ras in SW480 cell lines. KY1220 dose-dependently reduces Wnt3a-CM-induced TOPflash reporter activation and mRNA expression of Wnt target genes CCND1 and MYC in HEK293 cells. Ras destabilization by KY1220 consequently inhibits the activities of both ERK and Akt, which are downstream effectors of Ras in SW480 cells harboring a KRAS mutation. In HEK293 cells, both β-catenin and pan-Ras protein levels are similarly reduced in a dose-dependent manner after treatment with KY1220, whereas the mRNA levels of CTNNB1 (which encodes β-catenin), NRAS, KRAS, and HRAS remain unchanged. K-Ras, which has a critical role in the progression of CRCs, is also destabilized by KY1220 via polyubiquitin-dependent proteasomal degradation. The proliferation and transformation of the HCT15, SW480, D-WT, and D-MT CRC cells are efficiently inhibited after treatment with KY1220.

Solubility Information

Solubility	DMSO: 100 mg/mL (318.15 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.181 mL	15.907 mL	31.815 mL
5 mM	0.636 mL	3.181 mL	6.363 mL
10 mM	0.318 mL	1.591 mL	3.181 mL
50 mM	0.064 mL	0.318 mL	0.636 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Cha PH, et al. Small-molecule binding of the axin RGS domain promotes β-catenin and Ras degradation. Nat Chem Biol. 2016 Aug;12(8):593-600.

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