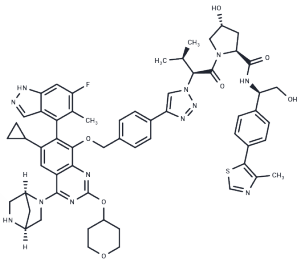
Data Sheet (Cat.No.T74663)

TargetMol

Setidegrasib

Chemical Properties



CAS No. : 2821793-99-9

Formula: C60H65FN12O7S

Molecular Weight: 1117.30

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Setidegrasib is a PROTAC-mediated KRAS degrader (DC50: 37 nM). Setidegrasib induces the formation of a ternary complex between KRAS G12D and the VHL E3 ubiquitin ligase, thereby facilitating the ubiquitination and proteasomal degradation of the oncogenic protein. Setidegrasib inhibits the levels of p-ERK, p-AKT, and p-S6 in AsPC-1 cells. Setidegrasib demonstrates antitumor activity in various mouse xenograft models of cancer. Setidegrasib can be used to study solid tumors with KRAS(G12D) mutations.
Targets(IC50)	Kras,PROTACs,Ras
In vitro	Methods: Various KRAS(G12D)-mutant cancer cell lines (AsPC-1, PK-59, HPAC, GP2d, GP5d, etc.) and KRAS wild-type (WT) cell lines (A375, HT-29, BxPC-3, COLO-320) were treated with Setidegrasib (0.1 nM - 10 μM) for 6 days, and ATP levels were measured using the CellTiter-Glo 2.0 assay. Results: Setidegrasib potently inhibited the proliferation of multiple KRAS(G12D)-mutant cancer cell lines, whereas its activity against KRAS(WT) cells (A375, HT-29) and other KRAS mutants (G12V, G12C, G13D) was weaker (IC50 > 10 μM). [1]
In vivo	Methods: To investigate the antitumor activity of setidegrasib, an LXFA 1125 lung cancer PDX model (nude mice) was established. Setidegrasib (10, 30 mg/kg) was administered intravenously twice weekly for 21 days. Results: Setidegrasib inhibited tumor growth in a dose-dependent manner; IHC analysis revealed reduced KRAS(G12D) expression. [1]

Solubility Information

Solubility	DMSO: 80.00 mg/mL (71.60 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.895 mL	4.4751 mL	8.9501 mL
5 mM	0.179 mL	0.895 mL	1.790 mL
10 mM	0.0895 mL	0.4475 mL	0.895 mL
50 mM	0.0179 mL	0.0895 mL	0.179 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Yoshinari T, et al. Discovery of KRAS(G12D) selective degrader ASP3082. Commun Chem. 2025;8(1):254. Published 2025 Aug 23.

Yoshinari, et al. Preparation of quinazoline-linked (4R)-4-hydroxy-L-prolinamide compounds for inducing degradation of G12D-mutation KRAS protein: World Intellectual Property Organization, WO2022173032[P]. 2022-08-18.