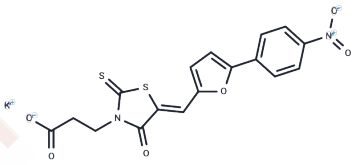
# Data Sheet (Cat.No.T6868)

TargetMol

KYA1797K

## Chemical Properties



CAS No. : 1956356-56-1

Formula: C17H11N2O6S2·K

Molecular Weight: 442.51

Storage: 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 | KYA1797K is a highly potent and selective inhibitor. Wnt/β-catenin IC50 is 0.75 μM through TOPflash assay. |
| Targets(IC50) | Wnt/beta-catenin |
| In vitro | KYA1797K significantly decreases reporter activities for the Wnt/β-catenin and MAPK/ERK pathways but does not affect the reporter activities of other cancer-related pathways, such as the Notch and TGFβ pathways, thus, KYA1797K selectively regulates the Wnt/β-catenin and Ras/ERK pathways. KYA1797K enhances the β-catenin binding affinity of endogenous axin, GSK3β and β-TrCP. Interaction between APC and β-catenin is not enhanced by KYA1797K. It promotes the formation of the β-catenin destruction complex. KYA1797K degrades both β-catenin and Ras in these cells(CRC lines SW480, LoVo, DLD1 and HCT15) in a dose-dependent manner, cell proliferation is also suppressed by KYA1797K treatment. KYA1797K inhibits proliferation of CRC cells mainly via destabilization of β-catenin with additional Ras degradation. KYA1797K directly targeted axin and modulated conformation of the β-catenin destruction complex[1]. |
| In vivo | KYA1797K administration by intraperitoneally injection(i.p.) (25 mg/kg) reduces both weight and volume of the tumor by 70% in mice carrying xenografted tumors from the D-MT cell line that harbors both APC and KRAS mutations. KYA1797K treatment significantly reduces levels of β-catenin and Ras proteins as well as Wnt/β-catenin and Ras signaling target. No change in the weight and no abnormalities in liver tissues of mice treated with KYA1797K. KYA1797K significantly reduces the subcellular localization of β-catenin in the nuclei and pan-Ras on the membrane of tumor cells. Thus, KYA1797K has anti-tumor effect[1]. |
| Cell Research | To assay cell proliferation, HCT15 or SW480 cells are plated at a density of 2 × 104 cells/well, and D-WT or D-MT cells were seeded at a density of 1×104 cells/well in a 24-well plate. The cells are then treated with 25 μM KYA1797K or with control (DMSO) for 72 h. In a 96-well plate, cells are seeded at a density of 3 × 103 cells/well. After 24 h, the cells are treated with KY1220, KYA1797K, IWR-1 or XAV939 for 4 d. Next, MTT reagent is added to each well at a concentration of 0.25 mg/ml. After incubation for 2 h at 37°C, insoluble purple formazan is obtained by removing the medium and incubating in 1ml (24-well) or 200 μl (96-well) of DMSO for 1 h. The absorbance of the formazan product is determined at 590 nm every 24 h. (Only for Reference) |

## Solubility Information

| | |
|---|---|
| Solubility | DMSO: 4.9 mg/mL (11.07 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.2598 mL | 11.2992 mL | 22.5984 mL |
| 5 mM | 0.452 mL | 2.2598 mL | 4.5197 mL |
| 10 mM | 0.226 mL | 1.1299 mL | 2.2598 mL |
| 50 mM | 0.0452 mL | 0.226 mL | 0.452 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

Cha PH, et al. Nat Chem Biol. 2016, 12(8):593-600.
Tsai Y W, Tseng Y S, Wu Y S, et al.N-Cadherin promotes cardiac regeneration by potentiating pro-mitotic β-Catenin signaling in cardiomyocytes.Nature Communications.2025, 16(1): 896.