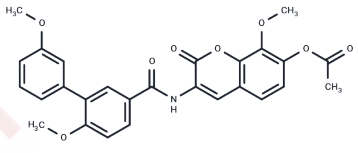
Data Sheet (Cat.No.T63273)

TargetMol

KU-177

Chemical Properties



CAS No. : 1160952-43-1

Formula: C27H23NO8

Molecular Weight: 489.47

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	KU-177 is a Hsp90 ATPase homolog 1 (Aha1) inhibitor. By disrupting the interaction between Hsp90 and Aha1, it prevents the proliferation of primary MM and relapsed MM patient samples. It eliminates the proliferation and PI resistance induced by AHSA1 elevation.
Targets(IC50)	HSP
In vitro	KU-177 (50 μM, 48 hours of action) was able to inhibit the proliferation of flow MRD-positive cells in samples from patients with primary and relapsed multiple myeloma (MM). [1] In AHSA1 WT/OE cells, PSMD2 WT/OE cells and ANBL6 WT/DR cells, KU-177 (30 μM, treated for 48 hours) decreased proteasome activity. [1] KU-177 disrupts the interaction of Aha1 with Hsp90 with an IC50 value of 4.08 μM without affecting the ATPase activity of Hsp90. [2] KU-177 (25 μM, incubated at 37°C for 30 min) inhibits the aggregation of recombinant P301L tau protein but does not affect the refolding of fluorokinase by inhibiting Hsp90. [2] KU-177 (10 μM, treated for 24 hours) exhibits the ability to disrupt the interaction of Aha1 with Hsp90 in SH-SY5Y neuroblastoma cells and SK-BR-3 breast cancer cells, while not significantly inhibiting the Hsp90 client protein Her2. [2]
In vivo	In the 5TMM3VT multiple myeloma mouse model, KU-177 (1 mg/kg, intraperitoneal injection twice weekly for 4 weeks) was able to inhibit tumor growth and prolong survival without showing significant toxicity. When combined with Bortezomib (1 mg/kg, intraperitoneal injection), KU-177 demonstrated more significant therapeutic effects in vivo. [1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.043 mL	10.2151 mL	20.4303 mL
5 mM	0.4086 mL	2.043 mL	4.0861 mL
10 mM	0.2043 mL	1.0215 mL	2.043 mL
50 mM	0.0409 mL	0.2043 mL	0.4086 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

Gu C, et al. AHSA1 is a promising therapeutic target for cellular proliferation and proteasome inhibitor resistance in multiple myeloma. J Exp Clin Cancer Res. 2022 Jan 6;41(1):11.
Keegan BM, et al. Synthesis and Evaluation of Small Molecule Disruptors of the Aha1/Hsp90 Complex for the Reduction of Tau Aggregation. ACS Med Chem Lett. 2022 Apr 15;13(5):827-832.