Data Sheet (Cat.No.T9901A-1780)

TargetMol

YS110

Chemical Properties

CAS No. : 1656248-21-3

Formula:

Molecular Weight:

Storage: Store at low temperature
Store at -20°C
Actual storage temperature shall be subject to the COA.

Biological Description

Description	YS110 is a humanized anti-CD26 (DPP4) IgG1 monoclonal antibody. It induces CD26 nuclear translocation via the caveolin pathway and inhibits tumor cell proliferation by delaying the G2/M cell cycle transition. Additionally, YS110 blocks the binding of MERS CoV S1 to CD26, thereby preventing Middle East Respiratory Syndrome Coronavirus (MERS-CoV) infection. This compound is applicable in research on cancer and infections, including malignant mesothelioma and MERS.
Targets(IC50)	ERK,Proteasome,p38 MAPK
In vitro	YS110, at concentrations of 0-250 μg/mL for 48 hours, inhibits NCI-H2452 cell proliferation in a concentration-dependent manner. At 2 μg/mL for 24 hours, it significantly increases the G2/M phase proportion in NCI-H2452 cells and affects the expression of related proteins. YS110 at 2 μg/mL enhances the phosphorylation of p38 MAPK and ERK1/2 in NCI-H2452 cells over 6 to 24 hours. It also inhibits JMN cell growth in a dose-dependent manner at 0-20 μg/mL for 48 hours and induces CD26 nuclear translocation in JMN cells through the caveolin pathway over 0-4 hours. Additionally, YS110 at 2 μg/mL for 3 hours significantly reduces POLR2A mRNA and protein levels in JMN cells. YS110 effectively inhibits MERS-CoV S1-Fc binding to CD26 in JKT-hCD26WT cells at 10 μg/mL for 30 minutes. Finally, at 40 μg/mL for 30 minutes, YS110 significantly decreases the infection rate of MERS-CoV in Huh-7 cells.
In vivo	Administering YS110 at a dose of (5 mg/kg or 5 μg) via intratumoral or intraperitoneal injection three times weekly significantly inhibits tumor growth in NOG mice with JMN xenografts. Additionally, YS110 at (8 mg/kg or 10 μg) similarly administered, effectively reduces both the volume and weight of tumors in NOG mice carrying JMN or MSTO/clone12 (MSTO/CD26) tumors.

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