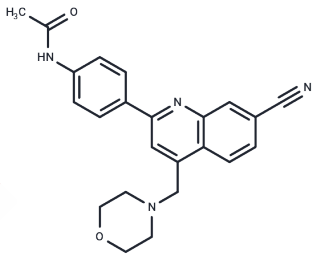
Data Sheet (Cat.No.T61721)

TargetMol

RAGE 229

Chemical Properties



CAS No. : 2143072-85-7

Formula: C23H22N4O2

Molecular Weight: 386.45

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	RAGE 229, N-(4-(7-cyano-4-(morpholin-4ylmethyl) quinolin-2-yl)phenyl)acetamide, is an orally active ctRAGE-DIAPH1 inhibitor. RAGE 229 can inhibit the intracellular RAGE signaling by inhibiting the interaction between the cytoplasmic tail of RAGE(ctRAGE) and Diaphanous-1(DIAPH1) [1].
Targets(IC50)	Others
In vitro	RAGE229 demonstrates high affinity for ctRAGE, exhibiting a dissociation constant (K D) of 2 nM, and effectively inhibits smooth muscle cell (SMC) migration, as indicated by an inhibitory concentration 50 (IC 50) value of 26 nM [1]. In a Cell Migration Assay [1], employing SMCs at concentrations ranging from 0.00006 to 10 μM and an incubation time of 1.5 hours, RAGE229 consistently inhibited SMC migration, reaffirming its IC 50 value at 26 nM.
In vivo	RAGE229, administered via oral gavage at a dosage of 5 mg/kg twice daily for four days, effectively mitigates both short- and long-term diabetic complications in mice. Additionally, RAGE229, given either orally or intravenously (150, 50, and 15 ppm chow; 30, 10, and 3 mg/kg per day per mouse) and through intraperitoneal injections (5 mg/kg, every 12 hours for four total doses), significantly reduces plasma levels of pro-inflammatory markers TNF-α, IL-6, and CCL2/JE-MCP1 in diabetic mice. This results in decreased pathological and functional signs of diabetes-like kidney disease. In female CF-1 and male diabetic mice, a dosage of 5 mg/kg administered orally twice daily for four days lowered inflammation scores and the area of infarcts. Similarly, in C57BL/6J and BTBR ob/ob mice models, varying dosages (30, 10, and 3 mg/kg; 5 mg/kg) delivered orally or intravenously, including specific chow concentrations (150, 50, and 15 ppm) and intraperitoneal injections (5 mg/kg, every 12 hours for four doses), effectively reduced the concentrations of inflammatory markers CCL2, TNF-α, and IL-6.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5877 mL	12.9383 mL	25.8766 mL
5 mM	0.5175 mL	2.5877 mL	5.1753 mL
10 mM	0.2588 mL	1.2938 mL	2.5877 mL
50 mM	0.0518 mL	0.2588 mL	0.5175 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.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481