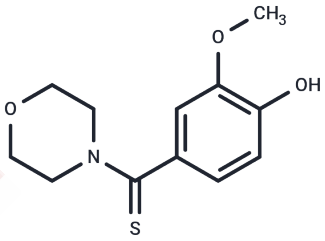
Data Sheet (Cat.No.T0243)

TargetMol

Vanitiolide

Chemical Properties



CAS No. : 17692-71-6

Formula: C12H15NO3S

Molecular Weight: 253.32

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	Vanitiolide (Vanitiolid) has cholelitic effects.
Targets(IC50)	Others
Kinase Assay	DPP-4 is extracted from confluent Caco-2 cells. After 5 minutes of incubation at room temperature with lysis buffer (10 mM Tris-HCl, 150 mM NaCl, 0.04 U/mL aprotinin, 0.5% Nonidet P40, pH 8.0), cells are centrifuged at 35,000 g at 4°C for 30 minutes, and the supernatant is stored at -80°C. Assays are performed by mixing 20 μL of appropriate compound dilutions with 50 μL of the substrate for the DPP-4 enzyme, H-Ala-Pro-7-amido-4-trifluoromethylcoumarin (final concentration in the assay, 100 μM) and 30 μL of the Caco-2 cell extract (diluted 1000-fold with 100 mM Tris-HCl, 100 mM NaCl, pH 7.8). Plates are incubated at room temperature for 1 hour, and fluorescence is measured at excitation/emission wavelengths of 405/535 nm using a SpectraMax GeminiXS. Dissociation kinetics of inhibitors from the DPP-4 enzyme is determined after a 1-hour preincubation of Caco-2 cell extracts with high inhibitor concentrations (30 nM for BI 1356, 3 μM for vildagliptin). The enzymatic reaction is started by adding the substrate H-Ala-Pro-7-amido-4-trifluoromethylcoumarin after a 3000-fold dilution of the preincubation mixture with assay buffer. Under these conditions, the difference in DPP-4 activity at a certain time point in the presence or absence of an inhibitor reflects the amount of this inhibitor still bound to the DPP-4 enzyme. Maximal reaction rates (fluorescence units/seconds ×1000) at 10-minute intervals are calculated using the SoftMax software of the SpectraMax and corrected for the rate of an uninhibited reaction [(vcontrol-vinhibitor)/vcontrol].

Solubility Information

Solubility	DMSO: 9 mg/mL (35.53 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9476 mL	19.7379 mL	39.4758 mL
5 mM	0.7895 mL	3.9476 mL	7.8952 mL
10 mM	0.3948 mL	1.9738 mL	3.9476 mL
50 mM	0.079 mL	0.3948 mL	0.7895 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

Chen J, et al. Natural Product-Based Screening for Lead Compounds Targeting SARS CoV-2 Mpro. Pharmaceuticals (Basel). 2023 May 19;16(5):767.

Chen J, Zhou X, Fu L, et al.Natural Product-Based Screening for Lead Compounds Targeting SARS CoV-2 Mpro[J]. Pharmaceuticals, 2023, 16(5): 767..Pharmaceuticals.2023, 16(5): 767.