

V1a/V2 antagonist 1

Chemical Properties

CAS No. :

Formula: C₂₅H₂₆ClN₅O₃

Molecular Weight: 479.96

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	V1a/V2 antagonist 1 (Compound 18j) is an orally active dual-target antagonist of V1a and V2 receptors, exhibiting high binding affinity toward these receptors [K _i values are hV1a: 0.13 nM, hV2: 0.53 nM, and mV1a: 0.5 nM; IC ₅₀ for hV1a is 2.2 nM]. This compound can inhibit oxytocin-induced scratching behavior in mice.
Targets(IC ₅₀)	Vasopressin Receptor
In vitro	V1a/V2 antagonist 1 (1 μM) demonstrates excellent liver microsomal metabolic stability with Cl _{int} (h/r/m) (μL/min/mg) values of 15.9/36.9/27.1. It exhibits no interaction with hERG (IC ₅₀ : >30 μM), and has a PDR value of 0.91 according to the VB-Caco-2 permeability assay.
In vivo	A V1a/V2 antagonist 1, administered orally at doses of 0.1-3 mg/kg with a 60-minute pretreatment, significantly inhibits Oxytocin-induced scratching behavior in mice.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0835 mL	10.4175 mL	20.8351 mL
5 mM	0.4167 mL	2.0835 mL	4.167 mL
10 mM	0.2084 mL	1.0418 mL	2.0835 mL
50 mM	0.0417 mL	0.2084 mL	0.4167 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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