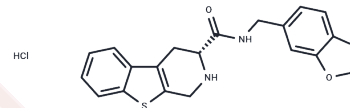


AP521

Chemical Properties

CAS No. : 151227-08-6
 Formula: C₂₀H₁₉ClN₂O₃S
 Molecular Weight: 402.89
 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	AP521 is an agonist of the human 5-HT _{1A} receptor (IC ₅₀ : 94 nM).
Targets(IC ₅₀)	5-HT Receptor
In vitro	AP521 is an agonist of the human 5-HT _{1A} receptor with IC ₅₀ values of 135 nM (5-HT _{1A} , rat), 94 nM (5-HT _{1A} , human), 254 nM (5-HT _{1B} , rat), 5530 nM (5-HT _{1B} , human), 418 nM (5-HT _{1D} , human), 422 nM (5-HT _{5a} , human), and 198 nM (5-HT ₇ , rat). AP521 also reduces forskolin-induced cAMP accumulation from 10 nM to 10 μM.
In vivo	AP521, at dosages ranging from 0.5 to 10 mg/kg, notably enhances shock acceptances and, when orally administered at 3 and 10 mg/kg, substantially reduces freezing time. Furthermore, it doubles the duration spent on the open arms compared to the vehicle-treated group, evidencing an anxiolytic-like effect that seems dose-dependent [F(3, 36) = 4.21, P < 0.05 for AP521]. At a concentration of 10 mg/kg, AP521 significantly boosts the extracellular 5-HT level in the medial prefrontal cortex (mPFC) from 0.5 to 1 hour post-administration. While a 3 mg/kg dose of AP521 suggests a potential increase in the extracellular 5-HT level, this rise is statistically insignificant.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4821 mL	12.4103 mL	24.8207 mL
5 mM	0.4964 mL	2.4821 mL	4.9641 mL
10 mM	0.2482 mL	1.241 mL	2.4821 mL
50 mM	0.0496 mL	0.2482 mL	0.4964 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

Kasahara K, et al. The effects of AP521, a novel anxiolytic drug, in three anxiety models and on serotonergic neural transmission in rats. J Pharmacol Sci. 2015 Jan;127(1):109-16.

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