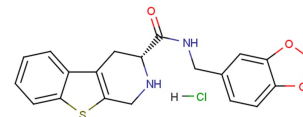


AP521

## Chemical Properties

CAS No.: 151227-08-6  
 Formula: C<sub>20</sub>H<sub>19</sub>CIN<sub>2</sub>O<sub>3</sub>S  
 Molecular Weight: 402.89  
 Appearance: N/A  
 Storage: 0-4°C for short term (days to weeks), or -20°C for long term (months).



## Biological Description

Description	AP521 is an agonist of the human 5-HT <sub>1A</sub> receptor (IC <sub>50</sub> : 94 nM).
Targets(IC <sub>50</sub> )	5-HT <sub>1A</sub> Receptor: 94 nM
In vitro	AP521 is an agonist of human 5-HT <sub>1A</sub> receptor (IC <sub>50</sub> s: 135, 94, 254, 5530, 418, 422 and 198 nM for 5-HT <sub>1A</sub> (rat), 5-HT <sub>1A</sub> (human), 5-HT <sub>1B</sub> (rat), 5-HT <sub>1B</sub> (human), 5-HT <sub>1D</sub> (human), 5-HT <sub>5a</sub> (human) and 5-HT <sub>7</sub> (rat)). AP521 also decreases the forskolin-induced cAMP accumulation from 10 nM to 10 μM.
In vivo	AP521 significantly increases the number of shock acceptances at doses between 0.5 to 10 mg/kg. Oral administration of AP521 at 3 and 10 mg/kg significantly decreases freezing time. AP521 significantly increases the time spent on the open arms by approximately 2-fold as compared to the vehicle-treated group [F(3, 36)=4.21, P<0.05 for AP521]. The anxiolytic-like effect of AP521 appears to be dose-related. AP521 significantly increases the extracellular 5-HT level of the medial prefrontal cortex (mPFC) at 10 mg/kg from 0.5 to 1 h after administration. AP521 at 3 mg/kg tends to increase the extracellular 5-HT level, however, this increase is not significant.

## Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.482 mL	12.41 mL	24.821 mL
5 mM	0.496 mL	2.482 mL	4.964 mL
10 mM	0.248 mL	1.241 mL	2.482 mL
50 mM	0.05 mL	0.248 mL	0.496 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

### Reference

1. 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.

Inhibitors · Natural Compounds · Compound Libraries

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