

ONO-8590580

## Chemical Properties

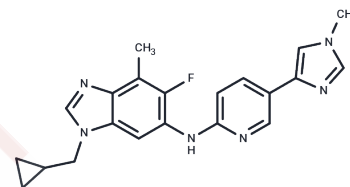
CAS No. : 1802661-73-9

Formula: C<sub>21</sub>H<sub>21</sub>FN<sub>6</sub>

Molecular Weight: 376.43

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	ONO-8590580 (CS-2894) is a negative allosteric modulator of GABAA $\alpha$ 5.
Targets(IC50)	GABA Receptor
In vivo	The study investigates the effects of ONO-8590580 on MK-801/scopolamine-induced cognitive deficits using the 8-arm radial maze test, with doses of MK-801 and scopolamine at 0.075 mg/kg (i.p.) and 0.2 mg/kg (i.p.), respectively. ONO-8590580 (20 mg/kg, p.o.) significantly reduces errors and total latency compared to the control. Unlike donepezil, ONO-8590580 significantly decreases the number of errors, suggesting it may be more effective for treating AD patients. The data indicate that ONO-8590580 is a novel GABAA $\alpha$ 5 NAM that enhances hippocampal memory function without causing anxiogenic or proconvulsant effects.

## Solubility Information

Solubility	DMSO: 60 mg/mL (159.39 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.31 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.6565 mL	13.2827 mL	26.5654 mL
5 mM	0.5313 mL	2.6565 mL	5.3131 mL
10 mM	0.2657 mL	1.3283 mL	2.6565 mL
50 mM	0.0531 mL	0.2657 mL	0.5313 mL

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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

Kawaharada S, et al. ONO-8590580, a Novel GABA $\alpha$ 5 Negative Allosteric Modulator Enhances Long-Term Potentiation and Improves Cognitive Deficits in Preclinical Models. *J Pharmacol Exp Ther*. 2018 Jul;366(1):58-65.

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