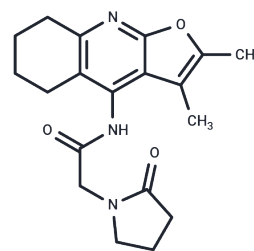


## Coluracetam

## Chemical Properties

CAS No. :	135463-81-9
Formula:	C <sub>19</sub> H <sub>23</sub> N <sub>3</sub> O <sub>3</sub>
Molecular Weight:	341.4
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	Coluracetam (MKC-231)(MKC-231) is a Choline Uptake Enhancer.
Targets(IC50)	AChR,iGluR
In vitro	Treatment with MKC-231 increased V <sub>max</sub> of HACU and B <sub>max</sub> of [3H]-HC-3 binding 1.6 and 1.7-fold, respectively. In studies of [3H]-MKC-231 binding and Biacore analysis, MKC-231 showed noticeable affinity for cloned high-affinity choline transporters (CHT1) [1].

## Solubility Information

Solubility	DMSO: 60 mg/mL (175.75 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9291 mL	14.6456 mL	29.2912 mL
5 mM	0.5858 mL	2.9291 mL	5.8582 mL
10 mM	0.2929 mL	1.4646 mL	2.9291 mL
50 mM	0.0586 mL	0.2929 mL	0.5858 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

Takashina K , Bessho T , Mori R , et al. MKC-231, a choline uptake enhancer: (3) mode of action of MKC-231 in the enhancement of high-affinity choline uptake[J]. Journal of Neural Transmission, 2008, 115(7):1037-1046.

Shirayama Y , Yamamoto A , Nishimura T , et al. Subsequent exposure to the choline uptake enhancer MKC-231 antagonizes phencyclidine-induced behavioral deficits and reduction in septal cholinergic neurons in rats[J]. European Neuropsychopharmacology, 2007, 17(9):616-626.

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