

## Protein deglycase DJ-1 against-1

## Chemical Properties

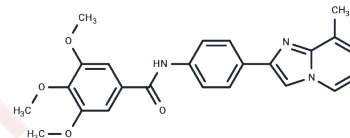
CAS No. : 724737-74-0

Formula: C<sub>24</sub>H<sub>23</sub>N<sub>3</sub>O<sub>4</sub>

Molecular Weight: 417.46

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	Protein deglycase DJ-1 against-1 (compound 23) is able to penetrate the blood-brain barrier (BBB) and bind to the C106 region of the DJ-1 protein, preventing DJ-1 over-oxidation to enhance cellular resistance to oxidative stress, thereby restoring neuronal cellular observed in a neurotoxin MPTP-induced model of Parkinson's disease (PD) death and motor deficits.
Targets(IC50)	Others,Dopamine Receptor
In vivo	In the MPTP-induced Parkinson's mouse model, intraperitoneal injection of compound-23 (1mg/kg for 4 days) improved motor deficits, protected dopaminergic neurons, and restored dopamine levels; however, these effects were absent in Protein deglycase DJ-1 against-1 knockout mice, indicating Protein deglycase DJ-1 against-1-dependent activity[1].

## Solubility Information

Solubility	DMSO: 16 mg/mL (38.33 mM),adjust pH to 7 with NaOH. (< 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 (4.79 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	2.3954 mL	11.9772 mL	23.9544 mL
5 mM	0.4791 mL	2.3954 mL	4.7909 mL
10 mM	0.2395 mL	1.1977 mL	2.3954 mL
50 mM	0.0479 mL	0.2395 mL	0.4791 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

Takahashi-Niki K, et al. DJ-1-dependent protective activity of DJ-1-binding compound no. 23 against neuronal cell death in MPTP-treated mouse model of Parkinson's disease. *J Pharmacol Sci.* 2015 Mar;127(3):305-10.

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