

## TC ASK 10

## Chemical Properties

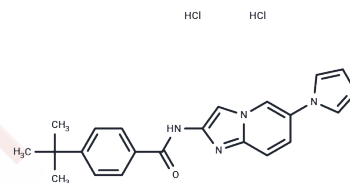
CAS No. : 1005775-56-3

Formula: C<sub>21</sub>H<sub>23</sub>Cl<sub>2</sub>N<sub>5</sub>O

Molecular Weight: 432.35

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	TC ASK 10 is a potent, selective and orally active inhibitor of apoptosis signal-regulating kinase 1 (ASK1, IC <sub>50</sub> = 14 nM). The IC <sub>50</sub> value for ASK2 is 0.51 μM.
Targets(IC <sub>50</sub> )	Apoptosis, ASK, MAPK
In vitro	Streptozotocin (STZ)-induced JNK in INS-1 pancreatic β cells from 0.3 μM inhibited by TC ASK 10 (0-10 μM; 1 hour; INS-1 cells). Phosphorylation of p38 is also inhibited in a dosedependent manner.
In vivo	In rats, Pharmacokinetic profiles are tested. TC ASK 10 (rat cassette doing at 0.1 mg/kg, iv and 1 mg/kg, po.) has a good oral bioavailability. The C <sub>max</sub> , T <sub>max</sub> and AUC <sub>po,0-8h</sub> are 285.1 ng/mL, 1.67 h and 275.4 ng.h/mL, respectively for TC ASK 10.

## Solubility Information

Solubility	DMSO: 100 mg/mL (231.29 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: 4 mg/mL (9.25 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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	1mg	5mg	10mg
1 mM	2.3129 mL	11.5647 mL	23.1294 mL
5 mM	0.4626 mL	2.3129 mL	4.6259 mL
10 mM	0.2313 mL	1.1565 mL	2.3129 mL
50 mM	0.0463 mL	0.2313 mL	0.4626 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

Terao Y, et al. Design and biological evaluation of imidazo[1,2-a]pyridines as novel and potent ASK1 inhibitors. *Bioorg Med Chem Lett.* 2012 Dec 15;22(24):7326-9.

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