

DS-1040 Tosylate

Chemical Properties

CAS No. : 1335138-89-0

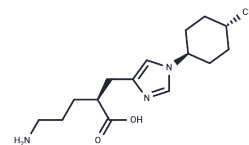
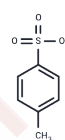
Formula: C₂₃H₃₅N₃O₅S

Molecular Weight: 465.61

Keep away from moisture

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	DS-1040 Tosylate is a thrombin-activated fibrinolysis inhibitor (TAFIa) inhibitor, also a fibrinolysis enhancer, inhibiting TAFIa and carboxypeptidase N, reducing fibrin clots in the lungs, useful in thromboembolic disease research.
Targets(IC50)	Others,Thrombin
In vitro	DS-1040 Tosylate inhibited human carboxypeptidase N (CPN) in vitro with an IC ₅₀ of 3.02 mM.[1]
In vivo	<p>Methods: DS-1040 Tosylate (0.016, 0.031, 0.063, 0.13, 0.25, 0.50 mg/kg, intravenous injection) was administered to mice with microthrombosis model to investigate the pharmacokinetic changes in vivo.</p> <p>Results: DS-1040 Tosylate increased plasma D-dimer levels in a dose-dependent manner. ED₅₀ and ED_{max} were 122 and 221nM, respectively.</p> <p>Methods: DS-1040 Tosylate (0.25, 0.5, 1, 2, 4, 8, 16 mg/kg; oral administration) was administered to mice with microthrombosis model to investigate the pharmacokinetic changes in vivo.</p> <p>Results: DS-1040 Tosylate increased plasma D-dimer levels, with EC₅₀ and EC_{max} values of 114 and 231 nmol/L, respectively.[1]</p>

Solubility Information

Solubility	<p>H₂O: 40 mg/mL (85.91 mM),Sonication is recommended.</p> <p>DMSO: 80 mg/mL (171.82 mM),Sonication is recommended.</p> <p>(< 1 mg/ml refers to the product slightly soluble or insoluble)</p>
In vivo Formulation	<p>10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (10.74 mM),Sonication is recommended.</p> <p><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></p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1477 mL	10.7386 mL	21.4772 mL
5 mM	0.4295 mL	2.1477 mL	4.2954 mL
10 mM	0.2148 mL	1.0739 mL	2.1477 mL
50 mM	0.043 mL	0.2148 mL	0.4295 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

Noguchi K, et al. Fibrinolytic potential of DS-1040, a novel orally available inhibitor of activated thrombin-activatable fibrinolysis inhibitor (TAFIa). *Thromb Res.* 2018 Aug;168:96-101.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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