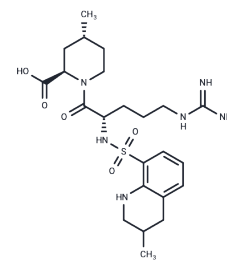


Argatroban

Chemical Properties

CAS No. :	74863-84-6
Formula:	C ₂₃ H ₃₆ N ₆ O ₅ S
Molecular Weight:	508.63
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	Argatroban is a specific thrombin inhibitor and a non-heparin anticoagulant that effectively prevents thrombus formation and is commonly used to establish thrombolysis models.
Targets(IC50)	Thrombin
In vitro	In a rat distal cerebral artery occlusion model, administration of Argatroban at a dose of 0.3 mg/hour significantly reduced the number of microthrombi following artery occlusion. Argatroban treatment (at 0.1 and 0.3 mg/hour) notably reversed the decline in local cerebral blood flow in rats with distal cerebral artery occlusion.
In vivo	Argatroban directly induces phenotypic transformation in vascular smooth muscle cells, upregulating the expression of myofilament-related proteins, PAI-1, and β -actin mRNA. In animal models with thrombosis rich in platelets and erythrocytes, Argatroban (ED ₅₀ =125 μ g/kg) demonstrates antithrombotic effects. It exhibits antithrombin activity across a range (K _i =5 nM-39 nM).

Solubility Information

Solubility	Ethanol: 6 mg/mL (11.8 mM), Sonication is recommended. DMSO: 247.5 mg/mL (486.6 mM), Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), (< 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 (3.93 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

	1mg	5mg	10mg
1 mM	1.9661 mL	9.8303 mL	19.6607 mL
5 mM	0.3932 mL	1.9661 mL	3.9321 mL
10 mM	0.1966 mL	0.983 mL	1.9661 mL
50 mM	0.0393 mL	0.1966 mL	0.3932 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

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