

Thymosin β 4 acetate(77591-33-4 free base)

Chemical Properties

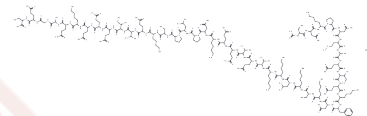
CAS No. : 1346423-89-9

Formula: C₂₁₄H₃₅₄N₅₆O₈₀S

Molecular Weight: 5023.56

Storage: Keep away from moisture,Store at low temperature
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	Thymosin β 4 (T β 4) is a thymic hormone with multiple and different intracellular and extracellular activities affecting wound healing, inflammation, fibrosis and tissue regeneration.
Targets(IC50)	Autophagy
In vitro	Thymosin b4 can stimulate migration of cardiomyocytes and endothelial cells and promotes survival of cardiomyocytes. The LIM domain protein PINCH18 and ILK19, both of which are necessary for cell migration and survival, formed a complex with thymosin b4 that resulted in phosphorylation of the survival kinase Akt.
In vivo	Treatment of adult mice with thymosin b4 after coronary ligation resulted in increased phosphorylation of Akt in the heart, enhanced early myocyte survival and improved cardiac function.

Solubility Information

Solubility	H ₂ O: 245 mg/mL (48.77 mM),Sonication is recommended. DMSO: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.1991 mL	0.9953 mL	1.9906 mL
5 mM	0.0398 mL	0.1991 mL	0.3981 mL
10 mM	0.0199 mL	0.0995 mL	0.1991 mL
50 mM	0.004 mL	0.0199 mL	0.0398 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

Renga G, Oikonomou V, Stincardini C, Pariano M, Borghi M, Costantini C, Bartoli A, Garaci E, Goldstein AL, Romani L. Thymosin β 4 limits inflammation through autophagy. *Expert Opin Biol Ther*. 2018 Jul;18(sup1):171-175. doi: 10.1080/14712598.2018.1473854.

Bock-Marquette I, Saxena A, White MD, Dimaio JM, Srivastava D. Thymosin beta4 activates integrin-linked kinase and promotes cardiac cell migration, survival and cardiac repair. *Nature*. 2004 Nov 25;432(7016):466-72. doi: 10.1038/nature03000.

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