

Systemin acetate(137181-56-7 free base)

Chemical Properties

CAS No. :

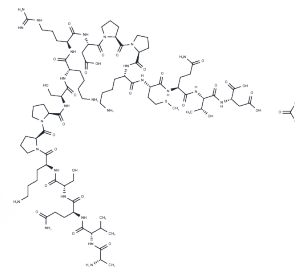
Formula: C87H148N26O30S

Molecular Weight: 2070.35

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	Systemin acetate is an 18-amino acid polypeptide with the sequence AVQSKPPSKRDPPKMQTD that is found in Solanaceae plants (such as tomato and potato).
Targets(IC50)	Others
In vitro	Systemin is readily transported from wound sites and is considered to be the primary systemic signal. The signal transduction pathway that mediates Systemin signaling involves linolenic acid release from membranes and subsequent conversion to jasmonic acid, a potent activator of defense gene transcription. The pathway exhibits analogies to arachidonic acid/prostaglandin signaling in animals that leads to inflammatory and acute phase responses[1]. Systemin, an 18-amino-acid peptide signal. Systemin is cleaved from the C-terminal region of a 200-amino acid precursor protein called proSystemin. Following the cloning of proSystemin gene, which represents a single locus in the tomato genome, several lines of genetic evidence indicate that Systemin acts as an upstream component of wound-induced signaling cascades leading to defense gene expression[2].

Solubility Information

Solubility	DMSO: 10 mM, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.483 mL	2.4151 mL	4.8301 mL
5 mM	0.0966 mL	0.483 mL	0.966 mL
10 mM	0.0483 mL	0.2415 mL	0.483 mL
50 mM	0.0097 mL	0.0483 mL	0.0966 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

Ryan CA, et al. Systemin: a polypeptide signal for plant defensive genes. *Annu Rev Cell Dev Biol.* 1998;14:1-17.

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