

Ascr#18

## Chemical Properties

CAS No. : 1355681-10-5

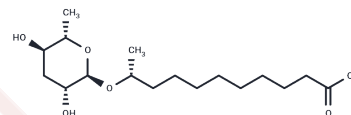
Formula: C17H32O6

Molecular Weight: 332.44

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	Ascr#18 is a naturally occurring small molecule pheromone belonging to the ascaroside family, secreted by various nematodes. In plant immunity research, Ascr#18 is recognized as a conserved defense signaling molecule that activates the plant's innate immune system and induces the expression of defense-related genes, thereby enhancing resistance to viral, bacterial, and fungal pathogens.
Targets(IC50)	Others
In vivo	Ascr#18 (0.1-10 $\mu$ M; pretreated 24 h) enhances pathogen resistance and activates defense responses in Arabidopsis[1].

## Solubility Information

Solubility	DMSO: 90.00 mg/mL (270.73 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: 2.40 mg/mL (7.22 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	3.0081 mL	15.0403 mL	30.0806 mL
5 mM	0.6016 mL	3.0081 mL	6.0161 mL
10 mM	0.3008 mL	1.504 mL	3.0081 mL
50 mM	0.0602 mL	0.3008 mL	0.6016 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

Manosalva P, et, al. Conserved nematode signalling molecules elicit plant defenses and pathogen resistance. Nat Commun. 2015 Jul 23;6:7795.

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