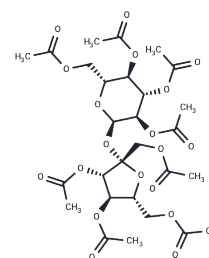


Sucrose octaacetate

Chemical Properties

CAS No. :	126-14-7
Formula:	C ₂₈ H ₃₈ O ₁₉
Molecular Weight:	678.59
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	Sucrose octaacetate is an acetylated derivative of sucrose used as a food additive, binder, and plasticizer. It is also incorporated in many pesticides, insecticides, and other toxic products as a deterrent to accidental poisoning.
Targets(IC50)	Others
In vitro	Sucrose octaacetate is nontoxic and widely used for its bitter taste. Polyaniline (PANI) nanofibers and nanorods are synthesized using 2 and 3 g of Sucrose octaacetate, respectively; higher concentrations result in irregular-shaped agglomerates. While the presence of Sucrose octaacetate affects the morphology, it does not alter PANI's molecular structure. Compared to those synthesized with 1, 3, and 4 g of Sucrose octaacetate, PANI polymerized from 2 g exhibits higher thermal stability and electrical conductivity due to higher crystallinity and an ordered structure [1][3].
In vivo	No recombination has been found between the Sucrose octaacetate-avoidance phenotype and PRP haplotype in any mouse population. To assess this, two type-A proline-rich protein genes (MP2 and M14), located approximately 30 kb apart at the Prp locus, are transferred separately from a Sucrose octaacetate-taster inbred strain (SWR) to a Sucrose octaacetate-nontaster inbred strain (FVB). Five MP2-transgenic mice and seven M14-transgenic mice remain insensitive to 1 mM Sucrose octaacetate in two-bottle tests, thus retaining the nontaster FVB phenotype [2].

Solubility Information

Solubility	DMSO: 55 mg/mL (81.05 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 mg/mL (2.95 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	1.4736 mL	7.3682 mL	14.7364 mL
5 mM	0.2947 mL	1.4736 mL	2.9473 mL
10 mM	0.1474 mL	0.7368 mL	1.4736 mL
50 mM	0.0295 mL	0.1474 mL	0.2947 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

William Craig Stagner, et al. Chapter Five - Sucrose octaacetate. Profiles of Drug Substances, Excipients and Related Methodology. Volume 44, 2019, Pages 267-291.

Harder DB, et al. Sucrose octaacetate avoidance in nontaster mice is not enhanced by two type-A Prp transgenes from taster mice. Chem Senses. 2000 Feb;25(1):39-45.

Hua Qiu, et al. Synthesis of polyaniline nanostructures via soft template of sucrose octaacetate. Synthetic Metals. Volume 160, Issues 11-12, June 2010, Pages 1179-1183.

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