Product Data Sheet

Product Name: Trehalose 6-behenate
Cat. No.: GC37823

Chemical Properties

Cas. No.	66755-19-9		
SMILES	O[C@H]([C@@H](O)[C@@H]1O)[C@H](O[C@@H]1COC(CCCCCCCCCCCCCCCCCCCCCC)=O)O[C@@]([C@@H]([C@@H](O)[C@@H]2O)O)([H])O[C@@H]2CO		
Formula	$C_{34}H_{64}O_{12}$	M.Wt	664.86
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Trehalose 6-behenate		

Background

Trehalose 6-behenate is a Th1/Th17 skewing vaccine adjuvant. Trehalose 6-behenate (TDB) exerts its effect through binding to the macrophage-inducible C-type lectin Mincle, a pathogen recognition receptor (PRR) that recognises pathogen-associated molecular patterns (PAMPs). The potential of Th1/Th17 skewing adjuvants in vaccine development provides a very real incentive for better definition of the structural motifs required for Mincle binding. Mincle is highly conserved between mice and humans, with 85 % protein similarity. In addition to being a receptor for TDMs, Trehalose 6-behenate (TDB), and the spliceosome-associated protein (SAP)130 (which activates Mincle at a binding site different to that involved in carbohydrate recognition), Mincle is also a receptor for Candida albicans, Malassezia, and Fonsecaea pedrosoi[1].

[1]. Stocker BL, et al. On one leg: trehalose monoesters activate macrophages in a Mincle-dependant manner. Chembiochem. 2014 Feb 10;15(3):382-8.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA