

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(CCCCCCCCCCCCCCCCCCCC=O)O[C@@H]([C@@H]([C@@H](O)[C@@H]2O)O)([H])O[C@@H]2CO

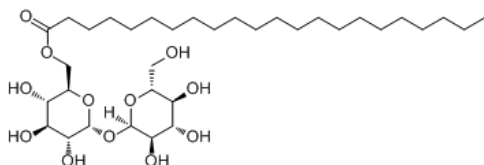
Formula $C_{34}H_{64}O_{12}$ M.Wt 664.86

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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



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-

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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.

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