

6,6'-Trehalose Dimycolate Accessory Reagent

6,6'-Trehalose Dimycolate (Cord-Factor, TDM)

CATALOG # AAA14806	HOST Mycobacterium bovis, Bacillus Calmette Guerin	APPLICATIONS Immunoadjuvant
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PRODUCT SYNONYMS

6; 6'-Trehalose Dimycolate; 6'-Trehalose Dimycolate (Cord-Factor; TDM); 6'-Trehalose Dimycolate accessory reagent

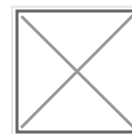
PRODUCT SPECIFICATIONS

Host	Mycobacterium bovis, Bacillus Calmette Guerin
Purity/Purification	Purified by Thin layer chromatography. >97%. Single spot
Form/Format	Supplied as a lyophilized powder
Applicable Applications for 6,6'-Trehalose Dimycolate accessory reagent	Immunoadjuvant
Application Notes	Immunoadjuvant: 100ug-1mg TDM/ml Optimal dilutions to be determined by the researcher.
Endotoxin	<10e-4 EU/ug (LAL)
Molecular Formula	$C_{130}H_{250}O_{15}C_2H_6$
Important Note	This product as supplied is intended for research use only.
Solubility (50mg/ml)	Chloroform: methanol: water (90:10:1)
Specific Rotation	+32 to +35 degree C, c=1
Quality Control	MALDI-TOF
Preparation and Storage	Store at -20 degree C in the dark. Stable for 6 months after receipt. For maximum recovery of product, centrifuge the original vial prior to removing the cap.

IMAGES



Application Data
Structure of T8270-10.



Application Data
Structure of AAA14806. 6'-Dicorynomycolate; 6,6' DiO-mycolyl, a -a, trehalos; sTDM, TDCM; Trehalose-6 ; sTDCM; Synthetic cord factor.

ADDITIONAL INFORMATION

Related Product Information for 6,6'-Trehalose Dimycolate accessory reagent	6,6'-Trehalose Dimycolate (Cord Factor, source: Mycobacterium bovis, Bacillus Calmette Guerin) 6,6'-dimycoloyl-a-D-trehalose (Mycobacterium bovis, BCG) is used as an immunoadjuvant for the induction and non-specific stimulation of antibody production against unrelated antigens. This results in an increased host resistance against infections and cancer, in the potentiation of vaccine immunogeneticity and in an increase of DNA vaccination efficacy. 6'6-Trehalose dimycolate (TDM) exhibits strong immunomodulatory effects, greatly enhancing the efficacy of DNA vaccination, shown to facilitate single-shot prime-boost DNA vaccines (3). TDM from M. bovis has a lower granulomatogenic activity as compared to TDM from M. tuberculosis (5). Preinjection of TDM followed by antigen injection triggers elevated antibody production (2). TDM stimulates macrophages, enhances non-specific immune responses and stimulates the antigen-presenting ability (7, 10). TDM Exhibits anti-tumor activity (2). TDM induces the production of both Th1-type and Th2-type cytokines (IFN-alpha, IFN-beta, IFN-gamma, IL-4, IL-6, IL-10, IL-12, TNF-alpha) as well as chemokines (MCP-1, MIP-1alpha, IL-8) (4, 6, 8, 9,11). TDM upregulates MHC class II expression on macrophages and causes expansion of Th1 cells (9). TDM is non-toxic on organisms and serves as protection against killing from macrophages. TDM becomes antigenic and highly toxic, when exposed to lipid surfaces.
Product Categories/Family for 6,6'-Trehalose Dimycolate accessory reagent	Molecular Biology; MB-Adjuvants

NCBI AND UNIPROT INFORMATION

Molecular Weight	2636.47
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For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/mycobacterium-bovis-bacillus-calmette-guerin-accessory-reagent/66-trehalose-dimycolate/14806>