## α-Mannosyl Ceramide

Potent stimulator of NKT cells

Potent stimulator of natural killer T (NKT) cells expressing the invariant  $V\alpha 19$ -J $\alpha 26$  T cell receptor  $\alpha$  chain ( $V\alpha 19$  NKT cells).

Natural killer T cells (NKT cells) are important regulators of the immune system. They share properties of both innate as well as adaptive immunity. They express T cell receptors (TCR) on their surface consisting of an invariable  $\alpha$ -chain and a somewhat variable  $\beta$ -chain. The majority of NKT cells express the invariable  $\alpha$ -chain V $\alpha$ 14-J $\alpha$ 18 (V $\alpha$ 14) in mouse or its homolog in humans V $\alpha$ 24-J $\alpha$ 18 (V $\alpha$ 24). V $\alpha$ 14 NKT cells recognize  $\alpha$ -GalCer presented by CD1d. NKT cells expressing the invariant V $\alpha$ 19-J $\alpha$ 26 TCR  $\alpha$ -chain (V $\alpha$ 19 NKT cells) have been found in peripheral blood lymphocytes and in the liver. They recognize  $\alpha$ -ManCer presented by MR1 (Major histocompatibility complex, class I-related) and respond with production of large amounts of immunoregulatory cytokines.

Citations: 3

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**Ordering Information** 

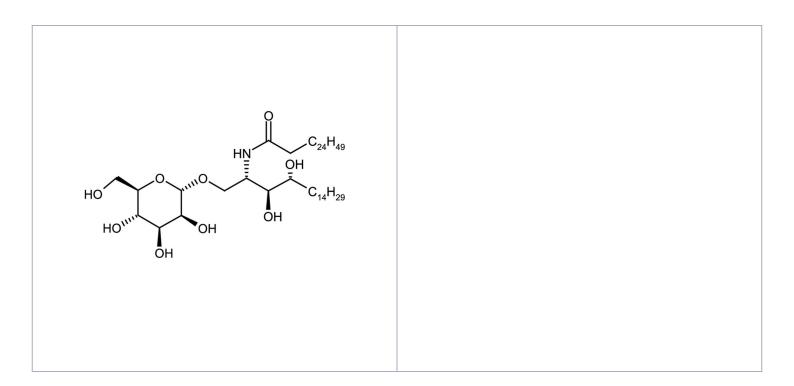
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ALX-306-031-M001

1mg

Manuals, SDS & CofA

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## **Handling & Storage**

**Use/Stability** As indicated on product label or CoA when stored as recommended.

**Handling** After reconstitution, aliquot into glass vials.

Short Term Storage +4°C

Long Term Storage -20°C

Shipping Blue Ice

## Regulatory Status RUO - Research Use Only

## **Product Details**

Alternative Name α-ManCer

**Appearance** White to brown powder.

Formula  $C_{50}H_{99}NO_9$ 

**MW** 858.3

**Purity** ≥95% (TLC and NMR)

**Solubility** Soluble in pyridine or warm DMSO (4mg/ml).

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