α-Mannosyl Ceramide

Potent stimulator of NKT cells

Potent stimulator of natural killer T (NKT) cells expressing the invariant Vα19-Jα26 T cell receptor α chain (Vα19 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 α-chain and a somewhat variable β-chain. The majority of NKT cells express the invariable α-chain Vα14-Jα18 (Vα14) in mouse or its homolog in humans Vα24-Jα18 (Vα24). Vα14 NKT cells recognize α-GalCer presented by CD1d. NKT cells expressing the invariant Vα19-Jα26 TCR α-chain (Vα19 NKT cells) have been found in peripheral blood lymphocytes and in the liver. They recognize α-ManCer presented by MR1 (Major histocompatibility complex, class I-related) and respond with production of large amounts of immunoregulatory cytokines.

Citations: 3 View Online »

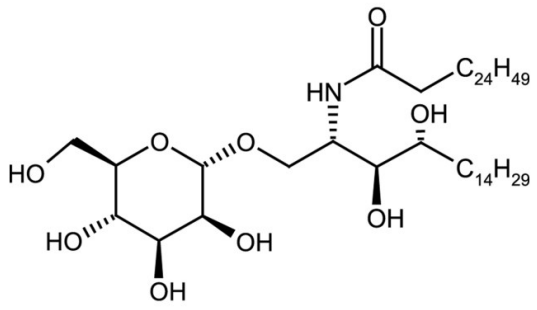
Ordering Information

Order Online »

ALX-306-031-M001	1mg

Manuals, SDS & CofA

View Online »


O
HN
$C_{24}H_{49}$
OH
$C_{14}H_{29}$
OH
O
O
HO
HO
OH
OH

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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ENZO LIFE SCIENCES, INC.
Phone: 800.942.0430
info-usa@enzolifesciences.com

European Sales Office
ENZO LIFE SCIENCES (ELS) AG
Phone: +41 61 926 8989
info-eu@enzolifesciences.com

Belgium, The Netherlands & Luxembourg
Phone: +32 3 466 0420
info-be@enzolifesciences.com

France
Phone: +33 472 440 655
info-fr@enzolifesciences.com

Germany
Phone: +49 7621 5500 526
info-de@enzolifesciences.com

UK & Ireland
Phone (UK customers): 0845 601 1488
Phone: +44 1392 825900
info-uk@enzolifesciences.com

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