

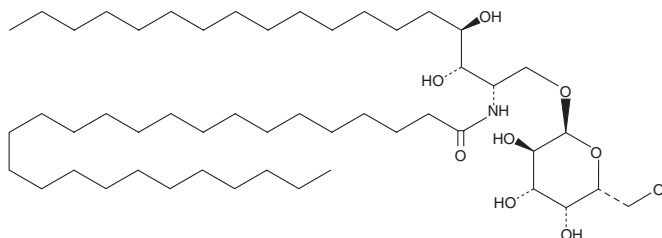
PRODUCT INFORMATION



KRN 7000

Item No. 11208

CAS Registry No.: 158021-47-7
Formal Name: N-[(1S,2S,3R)-1-[(α -D-galactopyranosyloxy)methyl]-2,3-dihydroxyheptadecyl]-hexacosanamide
MF: C₅₀H₉₉NO₉
FW: 858.3
Purity: \geq 96%
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

KRN 7000 is supplied as a solid. A stock solution may be made by dissolving the KRN 7000 in the solvent of choice, which should be purged with an inert gas. KRN 7000 is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

Description

KRN 7000 is a synthetic α -galactosylceramide and ligand for the lipid antigen-presenting molecule CD1d.^{1,2} KRN 7000 anchors to the hydrophobic cleft of CD1d on antigen-presenting cells, and binding of this complex to T cell receptors induces activation of invariant natural killer T (iNKT) cells.² It has been used as an adjuvant to induce iNKT cell activation in mice.³

References

1. Van Der Vliet, H.J.J., Nishi, N., Koezuka, Y., *et al.* Effects of α -galactosylceramide (KRN7000), interleukin-12 and interleukin-7 on phenotype and cytokine profile of human V α 24⁺ V β 11⁺ T cells. *Immunology* **98**(4), 557-563 (1999).
2. Saavedra-Avila, N.A., Pigni, N.B., Caldwell, D.R., *et al.* A humanized mouse model coupled with computational analysis identifies potent glycolipid agonist of invariant NKT cells. *ACS Chem. Biol.* **19**(4), 926-937 (2024).
3. Yang, D., Luo, X., Lian, Q., *et al.* Fully synthetic Tn-based three-component cancer vaccine using covalently linked TLR4 ligand MPLA and iNKT cell agonist KRN-7000 as built-in adjuvant effectively protects mice from tumor development. *Acta Pharm. Sin. B* **12**(12), 4432-4445 (2022).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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