

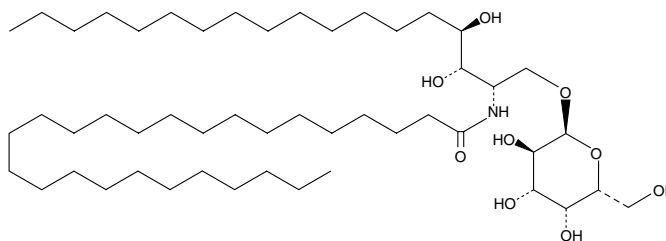
Product Information



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%
Stability: \geq 1 year at -20°C
Supplied as: An off-white solid



Laboratory Procedures

For long term storage, we suggest that KRN 7000 be stored as supplied at -20°C. It should be stable for at least one year. KRN 7000 is supplied as a crystalline solid. It is sparingly soluble in organic solvents such as tetrahydrofuran and pyridine.

KRN 7000 is a potent synthetic α -galactosylceramide, which, in association with the antigen-presenting CD1d protein, activates NKT immune cells.^{1,2} As these cells have important roles in the rejection of malignant tumors and in the regulation of several autoimmune diseases, KRN 7000 has activity in many diseases, including cancer, lupus, diabetes, malaria, and tuberculosis.³⁻⁵

References

1. Van Der Vliet, H.J.J., Nishi, N., Koezuka, Y., *et al.* Effects of α -galactosylceramide (KRN 7000), interleukin-12 and interleukin-7 on phenotype and cytokine profile of human V α 24⁺ V β 11⁺ T cells. *Immunology* **98**, 557-563 (1999).
2. Nicol, A., Nieda, M., Koezuka, Y., *et al.* Human invariant V α 24⁺ natural killer T cells activated by α -galactosylceramide (KRN 7000) have cytotoxic anti-tumour activity through mechanisms distinct from T cells and natural killer cells. *Immunology* **99**, 229-234 (2000).
3. Morita, M., Motoki, K., Akimoto, K., *et al.* Structure-activity relationship of α -galactosylceramides against B16-bearing mice. *J. Med. Chem.* **38**, 2176-2187 (1995).
4. Nakagawa, R., Motoki, K., Ueno, H., *et al.* Treatment of hepatic metastasis of the Colon26 adenocarcinoma with an α -galactosylceramide, KRN 7000. *Cancer Res.* **58**, 1202-1207 (1998).
5. Banchet-Cadecdu, A., Hénon, E., Dauchez, M., *et al.* The stimulating adventure of KRN 7000. *Org. Biomol. Chem.* **9**, 3080-3104 (2011).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/11208

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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