

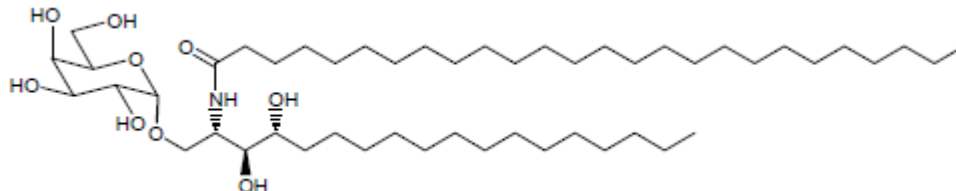
α -Galactosylceramide (α -Gal-Cer ; KRN7000)

Catalog Number : KRN7000

Lot Number :

Size : 1mg

Chemical structure



Chemical name

(2S,3S,4R)-1-O-(α -D-galactosyl)-N-hexacosanoyl-2-amino-1,3,4-octadecanetriol

Molecular formula C₅₀H₉₉NO₉

Molecular weight 858.34

Purity \geq 95%

Appearance White to off-white powder.

Solubility KRN7000 is practically insoluble in water, methanol or ethanol, very slightly soluble in tetrahydrofuran, slightly soluble in pyridine, and practically insoluble in other organic solvents.

Example of how to dissolve for biological assay

In vivo assay : To dissolve KRN7000, use 5.6% sucrose, 0.75% L-histidine and 0.5% Tween20 with heating at 60-80°C for tens of seconds.¹⁰⁾

In vitro assay : KRN7000 should be dissolved by DMSO at the concentration of 1mg/ml with heating at 60-80°C for tens of seconds. The solution of 1mg/ml in DMSO can be diluted by PBS.

Storage Short term storage +4°C, Long term storage -20°C

Shipping **Shipped on Blue ice**

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Warning Research use only. Not for use in humans.

Background

α -Galactosylceramide(α -Gal-Cer; KRN7000), an agelasphin derivative developed by Kirin Brewery Co., Ltd., is a biological response modifier (BRM). Agelasphins was isolated from an extract of the marine sponge, *Agelas mauritianus*, as active substances. They are compounds with α -Galactosylceramide structures, that is, galactose combined with ceramide in an α -configuration.

α -Gal-Cer ; KRN7000, a chemically synthesized α -Galactosylceramide, is a specific ligand for human and mouse natural killer T (NKT) cells, KRN7000 exhibits potent antitumor activity in various kinds of *in vivo* murine experimental models including subcutaneously implanted model and metastatic models in the liver and lung. In the liver metastatic models, treatment with KRN7000

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suppressed the growth of tumors and prolonged the survival term of tumor-bearing mice. KRN7000 has been reported to show various immunological effects in infectious disease, autoimmune disease, and graft versus host disease in mice.

References

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