

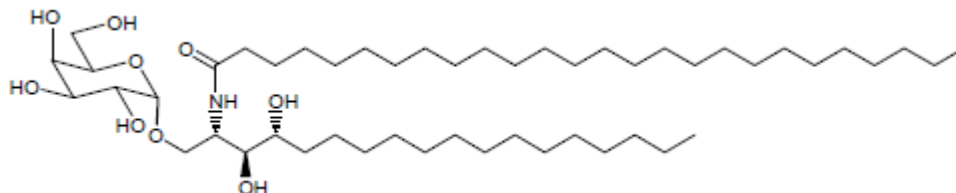
*$\alpha$ -Galactosylceramide*  
( *$\alpha$ -Gal-Cer ; KRN7000*)

**Catalog Number** : KRN7000

**Lot Number** : 8A0108

**Size** : 1mg

**Chemical structure**



**Chemical name**

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

**Molecular formula** C<sub>50</sub>H<sub>99</sub>NO<sub>9</sub>

**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**

**KRN7000 can be dissolved as follows for various biological examinations:**

**In vivo administration** : KRN7000 can be dissolved in a vehicle described by Giaccone et al.(10). Such a vehicle consists of 5.6% sucrose, 0.75% L-histidine, and 0.5% Tween 20. After mixing, the solution should be heated at 80°C until the material becomes completely dissolved and disappeared. This solution can be lyophilized and lyophilized powder can be reconstituted easily by pure water.

**In vitro use** : KRN7000 can be dissolved in DMSO at a concentration of 1 mg/mL. The solution should be heated at 80°C to get a clear solution.

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

**Shipping** **Shipped on Blue ice**

**License** This product is licensed by Kyowa Hakko Kirin Co., Ltd.

**Warning** Research use only. Not for use in humans.

**Background**

$\alpha$ -Galactosylceramide( $\alpha$ -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  $\alpha$ -Galactosylceramide structures, that is, galactose combined with ceramide in an  $\alpha$ -configuration.

$\alpha$ -Gal-Cer ; KRN7000, a chemically synthesized  $\alpha$ -Galactosylceramide, is a specific  
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## *$\alpha$ -Galactosylceramide* ( *$\alpha$ -Gal-Cer ; KRN7000*)

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 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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