Product Data Sheet

(Rac)-Phytosphingosine

Cat. No.: HY-W011303A CAS No.: 13552-11-9

Molecular Formula: C₁₈H₃₉NO₃ Molecular Weight: 317.51

Others Target: Pathway: Others

Please store the product under the recommended conditions in the Certificate of Storage:

Analysis.

BIOLOGICAL ACTIVITY

Description (Rac)-Phytosphingosine ((Rac)-4-Hydroxysphinganine) is the racemate of Phytosphingosine (HY-W011303).

> Phytosphingosine is a phospholipid with anti-inflammatory, antibacterial, and anti-cancer activities, which can induce apoptosis. Phytosphingosine is an immune regulator and can be used in the study of inflammatory skin diseases.

Phytosphingosine is also an activator of GPR120 with an IC₅₀ value of 33.4 μM and can be used in the study of type II diabetes

[1][2][3][4][5]

REFERENCES

[1]. Yasuhiko Fujino, et al. Molecular Species of Ceramide and Mono-, Di-, Tri-, and Tetraglycosylceramide in Bran and Endosperm of Rice Grains. Biological Chemistry. Pages 2753-2762

[2]. Pavicic T, Wollenweber U, Farwick M, et al. Anti-microbial and-inflammatory activity and efficacy of phytosphingosine: an in vitro and in vivo study addressing acne vulgaris[J]. International journal of cosmetic science, 2007, 29(3): 181-190.

[3]. Cai Q, et al. Phytosphingosine inhibits the growth of lung adenocarcinoma cells by inducing G2/M-phase arrest, apoptosis, and mitochondria-dependent pathway cell death in vitro and in vivo. Chem Biol Interact. 2024 Jan 5;387:110795.

[4]. Glenz R, et al. The major plant sphingolipid long chain base phytosphingosine inhibits growth of bacterial and fungal plant pathogens. Sci Rep. 2022 Jan 20;12(1):1081.

[5]. Nagasawa T, et al. Phytosphingosine is a novel activator of GPR120. J Biochem. 2018 Jul 1;164(1):27-32.

Caution: Product has not been fully validated for medical applications. For research use only.

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