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Produktinformation

- Forschungsprodukte & Biochemikalien
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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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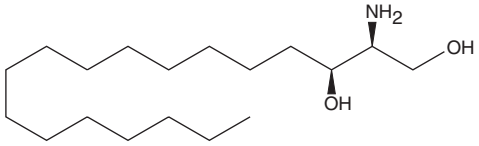
PRODUCT INFORMATION

Safingol

Item No. 18624

CAS Registry No.: 15639-50-6
Formal Name: (2S,3S)-2-amino1,3-octadecanediol
Synonyms: L-*threo*-Dihydrosphingosine, L-*threo*-Sphinganine
MF: $C_{18}H_{39}NO_2$
FW: 301.5
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥1 year



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

Laboratory Procedures

Safingol is supplied as a crystalline solid. A stock solution may be made by dissolving the safingol in the solvent of choice. Safingol is soluble in the organic solvent ethanol which should be purged with an inert gas. The solubility of safingol in ethanol is 0.25 mg/ml.

Safingol is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Safingol is the L-threo diastereomer of D-erythro-sphinganine (Item No. 10007945) and a dual inhibitor of PKC and sphingosine kinase (SPHK).[1,2] It inhibits PKC by binding at the regulatory phorbol-binding domain (IC_{50} = 24 µM).[1] Safingol also inhibits SPHK (K_i = ~5 µM).[2] Safingol (0.2-6 µM) restores sensitivity to cisplatin (Item No. 13119) in resistant AGScis5 cells and N87 gastric cancer cells in a concentration-dependent manner.[3]

References

1. Wilson, E., Olcott, M.C., Bell, R.M., *et al.* Inhibition of the oxidative burst in human neutrophils by sphingoid long-chain bases. Role of protein kinase C in activation of the burst. *J. Biol. Chem.* **261(27)**, 12616-12623 (1986).
2. Baek, D.J., Macritchie, N., Anthony, N.G., *et al.* Structure-activity relationships and molecular modeling of sphingosine kinase inhibitors. *J. Med. Chem.* **56(22)**, 9310-9327 (2013).
3. Matula, K., Collie-Dugid, E., Murray, G., *et al.* Regulation of cellular sphingosine-1-phosphate by sphingosine kinase 1 and sphingosine-1-phopshate lyase determines chemotherapy resistance in gastroesophageal cancer. *BMC Cancer* **15:762**, (2015).

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