

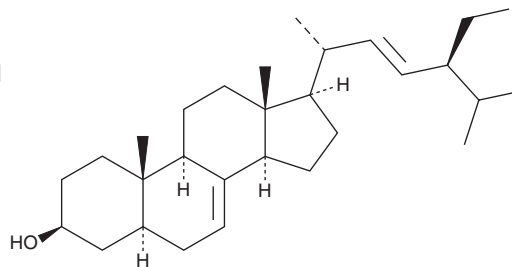
PRODUCT INFORMATION



α -Spinasterol

Item No. 14197

CAS Registry No.: 481-18-5
Formal Name: (3 β ,5 α ,22E)-stigmasta-7,22-dien-3-ol
Synonyms: Bessisterol, Hitodesterol
MF: C₂₉H₄₈O
FW: 412.7
Purity: \geq 95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

α -Spinasterol is supplied as a crystalline solid. A stock solution may be made by dissolving the α -spinasterol in the solvent of choice. α -Spinasterol is soluble in organic solvents such as ethanol and dimethyl formamide, which should be purged with an inert gas. The solubility of α -spinasterol in these solvents is approximately 0.25 and 1 mg/ml, respectively.

Description

α -Spinasterol is a bioavailable phytosterol originally isolated from spinach that acts as an antagonist at the transient receptor potential vanilloid type 1 (TRPV1) receptor ($IC_{50} = 1.4 \mu M$).^{1,2} It has antinociceptive effects in a noxious heat-induced pain test and also reduces hyperalgesia and edema in a complete Freund's adjuvant-induced inflammatory pain test in mice at a dose of 0.3 $\mu mol/kg$. α -Spinasterol increases the seizure threshold in a dose-dependent manner and reduces depressive-like behavior in mice.^{3,4} It also has anti-inflammatory activity *in vivo* and inhibits benign prostatic hyperplasia in rats.^{5,6}

References

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- Trevisan, G., Rossato, M.F., Walker, C.I., *et al.* Identification of the plant steroid α -spinasterol as a novel transient receptor potential vanilloid 1 antagonist with antinociceptive properties. *J. Pharmacol. Exp. Ther.* **343(2)**, 258-269 (2012).
- Socala, K., Nieoczym, D., Pieróg, M., *et al.* α -Spinasterol, a TRPV1 receptor antagonist, elevates the seizure threshold in three acute seizure tests in mice. *J. Neural. Transm. (Vienna)* **122(9)**, 1239-1247 (2015).
- Socala, K. and P. Wlaż. Evaluation of the antidepressant and anxiolytic-like activity of α -spinasterol, a plant derivative with TRPV1 antagonistic effects, in mice. *Behav. Brain Res.* **303**, 19-25 (2016).
- Borges, F.R., Silva, M.D., Córdova, M.M., *et al.* Anti-inflammatory action of hydroalcoholic extract, dichloromethane fraction and steroid α -spinasterol from *Polygala sabulosa* in LPS-induced peritonitis in mice. *J. Ethnopharmacol.* **151(1)**, 144-150 (2014).
- Lee, M.-Y., Shin, I.-S., Kyoung, H., *et al.* α -Spinasterol from *Melandrium firmum* attenuates benign prostatic hyperplasia in a rat model. *Mol. Med. Rep.* **9(6)**, 2362-2366 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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