

PRODUCT INFORMATION

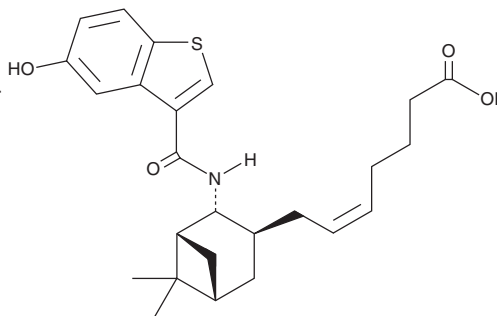


S-5751

Item No. 10004030

CAS Registry No.: 209268-36-0
Formal Name: (5Z)-7-[(1R,2R,3S,5S)-2-[[[5-hydroxybenzo[b]thien-3-yl]carbonyl]amino]-6,6-dimethylbicyclo[3.1.1]hept-3-yl]-5-heptenoic acid

MF: C₂₅H₃₁NO₄S
FW: 441.6
Purity: ≥95%
UV/Vis.: λ_{max}: 221, 269, 317 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

S-5751 is supplied as a crystalline solid. A stock solution may be made by dissolving the S-5751 in the solvent of choice, which should be purged with an inert gas. S-5751 is soluble in the organic solvent DMSO at a concentration of approximately 36 mg/ml.

Description

S-5751 is an antagonist of the prostaglandin D₂ (PGD₂) receptor DP₁ (K_i = 1.6 nM) that shows at least 20-fold selectivity over receptors for thromboxane and prostacyclin, as well as the PGE₂ receptor EP₂.^{1,2} Orally administered S-5751 blocks PGD₂-induced plasma exudation in the conjunctiva (ED₅₀ = 0.099 mg/kg) and suppresses antigen-induced allergic responses in guinea pigs.¹ S-5751 has been used to distinguish signaling of PGD₂ through its two receptors, DP₁ and DP₂ (also known as CRTH2).³

References

1. Arimura, A., Yasui, K., Kishino, J., *et al.* Prevention of allergic inflammation by a novel prostaglandin receptor antagonist, S-5751. *J. Pharmacol. Exp. Ther.* **298(2)**, 411-419 (2001).
2. Tsuru, T., Honma, T., Hiramatsu, Y., *et al.* Bicyclo[2.2.1]heptane and 6,6-dimethylbicyclo[3.1.1]heptane derivatives: Orally active, potent, and selective prostaglandin D₂ receptor antagonists. *J. Med. Chem.* **40(22)**, 3504-3507 (1997).
3. Choi, Y.H., Lee, S.-N., Aoyahi, H., *et al.* The extracellular signal-regulated kinase mitogen-activated protein kinase/ribosomal S6 protein kinase 1 cascade phosphorylates cAMP response element-binding protein to induce MUC5B gene expression via D-prostanoid receptor signaling. *J. Biol. Chem.* **286(39)**, 34199-3214 (2011).

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.

WARRANTY AND LIMITATION OF REMEDY

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM