

# 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:** C<sub>25</sub>H<sub>31</sub>NO<sub>4</sub>S

**FW:** 441.6

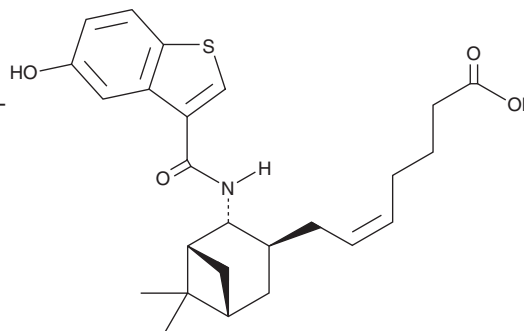
**Purity:** ≥95%

**UV/Vis.:** λ<sub>max</sub>: 221, 269, 317 nm

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



## 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. S-5751 is soluble in the organic solvent DMSO, which should be purged with an inert gas, at a concentration of approximately 36 mg/ml.

## Description

S-5751 is an antagonist of the prostaglandin D<sub>2</sub> (PGD<sub>2</sub>) receptor DP<sub>1</sub> (K<sub>i</sub> = 1.6 nM) that shows at least 20-fold selectivity over receptors for thromboxane and prostacyclin, as well as the PGE<sub>2</sub> receptor EP<sub>2</sub>.<sup>1,2</sup> Orally administered S-5751 blocks PGD<sub>2</sub>-induced plasma exudation in the conjunctiva (ED<sub>50</sub> = 0.099 mg/kg) and suppresses antigen-induced allergic responses in guinea pigs.<sup>1</sup> S-5751 has been used to distinguish signaling of PGD<sub>2</sub> through its two receptors, DP<sub>1</sub> and DP<sub>2</sub> (also known as CRTH2).<sup>3</sup>

## 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 D<sub>2</sub> 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/09/2016

## 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