

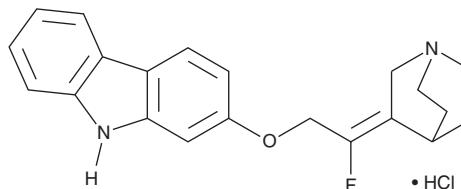
Product Information



YM-53601

Item No. 18113

CAS Registry No.: 182959-33-7
Formal Name: 2-[(2E)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-9H-carbazole, monohydrochloride
MF: C₂₁H₂₁FN₂O • HCl
FW: 372.9
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that YM-53601 be stored as supplied at -20°C. It should be stable for at least two years.

YM-53601 is supplied as a crystalline solid. A stock solution may be made by dissolving the YM-53601 in an organic solvent purged with an inert gas. YM-53601 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of YM-53601 in ethanol is approximately 2 mg/ml and approximately 20 mg/ml in DMSO and DMF.

YM-53601 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, YM-53601 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. YM-53601 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Squalene synthase catalyzes the dimerization of two farnesyl pyrophosphate molecules to form the key cholesterol precursor, squalene. YM-53601 inhibits squalene synthase activity in rat hepatic microsomes and human HepG2 cells with IC₅₀ values of 90 and 79 nM, respectively.^{1,2} Cholesterol biosynthesis is inhibited in rats with an ED₅₀ value of 32 mg/kg YM-53601, causing a reduction in both cholesterol and triglyceride levels in plasma.¹ Cholesterol-reducing HMG-CoA reductase inhibitors, which have little effect on plasma triglyceride levels, are often paired with fibrates, which can have adverse effects, to treat hyperlipidemia. The lipid-lowering properties of compounds such as YM-53601 make squalene synthase inhibition an attractive alternative to the combination HMG-CoA reductase inhibitor/fibrate therapy.

References

1. Ugawa, T., Kakuta, H., Moritani, H., *et al.* YM-53601, a novel squalene synthase inhibitor, reduces plasma cholesterol and triglyceride levels in several animal species. *Brit. J Pharmacol.* **131**, 63-70 (2000).
2. Ishihara, T., Kakuta, H., Moritani, H., *et al.* Synthesis of 3-ethylidenequinuclidine derivatives as squalene synthase inhibitors. Part 2: Enzyme inhibition and effects on plasma lipid levels. *Bioorganic & Medicinal Chemistry* **11**, 3735-3745 (2003).

Related Products

Clofibrate - Item No. 10945 • Fenofibrate - Item No. 10005368 • Bezafibrate - Item No. 10009145 • Fluvastatin (sodium salt) - Item No. 10010337 • Lovastatin - Item No. 10010338 • Mevastatin - Item No. 10010340 • Pravastatin (sodium salt) - Item No. 10010343 • Simvastatin - Item No. 10010344

Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 05/23/2011