
Product Data Sheet

Product Name: ACS 67
 Cat. No.: GC10623

Chemical Properties

Cas. No. 1088434-86-9

Chemical Name 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-4-(3-thioxo-3H-1,2-dithiol-5-yl)phenyl ester, 5Z-heptenoic acid

SMILES O[C@@H]1[C@H](C/C=C\CCCC(OC2=CC=C(C3=CC(SS3)=S)C=C2)=O)[C@@H](CC[C@@H](O)CCC4=CC=CC=C4)[C@H](O)C1

Formula C₃₂H₃₈O₅S₃ M.Wt 598.8

Solubility ≤2mg/ml in ethanol;20mg/ml in DMSO;30mg/ml in dimethyl formamide Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

ACS 67 is an analog of latanoprost acid.

Latanoprost, an F-series prostaglandin (PG) analog, has been approved for use as an ocular hypotensive drug for the treatment of glaucoma clinically. Latanoprost is an isopropyl ester, a prodrug form which is converted to free latanoprost acid by endogenous esterase enzymes.

In vitro: In previous study, ACS 67 was found to be able to increase the reduced glutathione levels in normotensive pigmented rabbits significantly after single administration in a dose-dependent manner. Furthermore, in glaucomatous pigmented rabbits after repeated 5-day administration, ACS 67 could also increase the GSH levels when compared with latanoprost. In addition, it was found that ACS 67 could

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Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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significantly increase the cGMP levels in glaucomatous pigmented rabbits and these data with the combination supported that the increase of cGMP was due to the sulfurated moiety of ACS 67. Moreover, the tolerability was measured in New Zealand albino rabbits at three different concentrations of ACS 67, and results indicated that ACS 67 was very well tolerated in Draize test [1].

In vivo: So far, there is no animal in vivo data reported.

Clinical trial: Up to now, ACS 67 is still in the preclinical development stage.

Reference:

[1] E. Perrino, C. Uliva, C. Lanzi, et al. New prostaglandin derivative for glaucoma treatment. *Bioorganic & Medicinal Chemistry Letters* 19, 1639-1642 (2009).

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