Product Data Sheet

Product Name: S-8921
Cat. No.: GC31541

Chemical Properties

Cas. No.	151165-96-7		
SMILES	O=C(C1=C(C(CC(CC)CC)=O)C(O)=C2C=C(OC)C(OC)=C(OC)C2=C1C3=CC=C(OC)C(OC)=C3)OC		
Formula	$C_{30}H_{36}O_9$	M.Wt	540.6
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	S-8921		

Protocol

Cell experiment:

Tripsinized IBAT-COS cells are suspended in the culture medium at the density of 0.8 to 1×105 cells/mL. Aliquots (1 mL) of this suspension are dispersed onto 4-well plastic dishes and the cells are cultured for 48 hours. S-8921 is pre-incubated with the cells for 1 minute when its inhibitory effects are investigated. S-8921 is added as a DMSO solution, with the final concentration of DMSO in buffer A being 0.2 % [1].

Animal experiment:

Male golden Syrian hamsters (8 weeks old) are used and given standard powdered diet before starting the experiment and have free access to food and water. The hamsters are divided into six groups so that each group has a similar baseline serum cholesterol concentration. After one more week of adaptation, the animals are either continued on the control diet or switched to a diet supplemented with S-8921 at concentrations of 0.001, 0.003, 0.01, 0.03, and 0.1 % (corresponding to 0.8, 2, 8, 22, and 77 mg/kg/day, respectively) for 7 days. Feces are collected over the last 2 days of the study and lyophylized. The animals are fasted overnight and blood samples are collected from the abdominal aorta under pentobarbital anaesthesia[1].

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References:

[1]. Hara S, et al. S-8921, an ileal Na+/bile acid cotransporter inhibitor decreases serum cholesterol in hamsters. Life Sci. 1997;60(24):PL 365-70.
[2]. Higaki J, et al. Inhibition of ileal Na+/bile acid cotransporter by S-8921 reduces serum cholesterol and prevents atherosclerosis in rabbits. Arterioscler Thromb Vasc Biol. 1998 Aug;18(8):1304-11.

Background

S-8921 is an ileal Na+/bile acid cotransporter (IBAT) inhibitor.

S-8921 is an ileal Na+/bile acid cotransporter (IBAT) inhibitor. S-8921 inhibits the uptake velocity of 60 μM [3H] taurocholate dose-dependently in IBAT-COS cells, and the IC50 value of S-8921 is 66±8 μM[1].

Seven-day treatment with S-8921 causes a dramatic decrease of serum cholesterol concentrations in hamsters. The hypocholesterolemic effects of S-8921 are dose-dependent, but S-8921 does not affect body weight. An increase of fecal bile acid excretion is observed especially at higher doses of S-8921[1]. S-8921 treatment for 1 to 2 weeks causes a decrease in serum total cholesterol concentrations, with 0.01% S-8921 (4.0 to 4.6 mg/kg) being almost maximally effective[2].

[1]. Hara S, et al. S-8921, an ileal Na+/bile acid cotransporter inhibitor decreases serum cholesterol in hamsters. Life Sci. 1997;60(24):PL 365-70. [2]. Higaki J, et al. Inhibition of ileal Na+/bile acid cotransporter by S-8921 reduces serum cholesterol and prevents atherosclerosis in rabbits. Arterioscler Thromb Vasc Biol. 1998 Aug;18(8):1304-11.

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