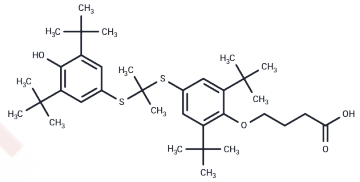
Data Sheet (Cat.No.T31615)

TargetMol

Elsibucol

Chemical Properties



CAS No. : 216167-95-2

Formula: C35H54O4S2

Molecular Weight: 602.93

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Elsibucol (AGI 1096) is a VCAM1 inhibitor for the study of organ transplant rejection. Elsibucol is a metabolically stable propanol derivative with antioxidant, anti-inflammatory and anti-proliferative properties. It lowers blood cholesterol levels and reduces oxidative stress and inflammatory responses in injured arteries, thereby inhibiting atherosclerosis and protecting endothelial healing after arterial injury.
Targets(IC50)	Others,Antioxidant,Integrin
In vitro	Elsibucol(0-20 μM) inhibited the inducible expression of vascular cell adhesion molecule (VCAM)-1, E-selectin, and monocyte chemoattractant protein (MCP)-1 in endothelial cells and tumor necrosis factor (TNF)-alpha and interleukin (IL)-1beta secretion from lipopolysaccharide (LPS)-stimulated peripheral blood mononuclear cells. It also inhibited the serum-stimulated proliferation of aortic smooth muscle cells.[4]
In vivo	Elsibucol (0.5%, 1%; feed; arterial injury in rabbits with hypercholesterolemia; 3 weeks) significantly decreases blood total cholesterol, LDLc, and triglyceride levels. This is associated with a significant 46% reduction of neointimal hyperplasia following arterial injury. Interestingly, the effect of Elsibucol on cholesterol levels and neointimal formation appears to be more pronounced than that of probucol. Treatment with Elsibucol is associated with a significant reduction of cellular proliferation (PCNA immunostaining), oxidative stress (nitrotyrosine immunostaining), VCAM-1 expression, and macrophage infiltration in injured arteries. Despite its potent effect on neointimal hyperplasia, Elsibucol does not prevent endothelial healing (Evans blue staining) following arterial injury. CONCLUSIONS: In hypercholesterolemic animals, Elsibucol inhibits atherosclerosis and preserves endothelial healing following arterial injury.[1]

Solubility Information

Solubility	DMSO: 50 mg/mL (82.93 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (4.15 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6586 mL	8.2928 mL	16.5857 mL
5 mM	0.3317 mL	1.6586 mL	3.3171 mL
10 mM	0.1659 mL	0.8293 mL	1.6586 mL
50 mM	0.0332 mL	0.1659 mL	0.3317 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Dussault S, et al. Elsibucol inhibits atherosclerosis following arterial injury: multifunctional effects on cholesterol levels, oxidative stress and inflammation. Atherosclerosis. 2014 Nov;237(1):194-9.
First MR, et al. New drugs to improve transplant outcomes. Transplantation. 2004;77(9 Suppl):S88-S92.
LI T, et al. Effect and Possible Mechanism of Elsibucol Inhibiting Atherosclerosis in Experimental Rabbits. Chinese Circulation Journal. 2016: 449-453.
Murata S, et al. Effects of AGI-1096, a novel antioxidant compound with anti-inflammatory and antiproliferative properties, on rodent allograft arteriosclerosis. Transplantation. 2004 May 27;77(10):1494-500.