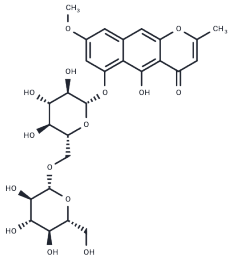
Data Sheet (Cat.No.TN2165)

TargetMol

Rubrofusarin gentiobioside

Chemical Properties



CAS No. : 24577-90-0

Formula: C27H32O15

Molecular Weight: 596.53

Storage: Keep away from direct sunlight
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	Rubrofusarin gentiobioside (Rubrofusarin-6-O-beta-D-gentiobioside) can significantly decrease the expression of TGF-beta1 and fibronectin and NF-kappaB DNA binding activity, suggests that it has potential as a preventive agent for advanced glycation end products-related diabetic complications.
Targets(IC50)	ERK,NF-κB,TGF-beta/Smad
In vitro	To examine the pharmacological effects of a butanol-soluble extract of CS under conditions of diabetic nephropathy, we evaluated the expression of transforming growth factor-beta1 (TGF-beta1) and fibronectin, key mediators of diabetic nephropathy, in mouse glomerular mesangial cells cultured in the presence of S100b (a specific ligand for receptor of advanced glycation end products). CS inhibited S100b-induced TGF-beta1 and fibronectin expression in mouse mesangial cells by suppressing activation of Smad2/3, extracellular signal-regulated kinase (ERK)/mitogen-activated protein kinase (MAPK), and oxidative stress. Moreover, CS suppressed nuclear factor-kappa B (NF-kappaB) activation in S100b-stimulated mouse mesangial cells. To identify the active compounds of CS, three major compounds, Rubrofusarin-6-O-beta-D-gentiobioside (CS-A), toralactone-9-O-beta-d-gentiobioside (CS-B), and cassiaside (CS-C), were tested in cells. Of these compounds, CS-A significantly decreased the expression of TGF-beta1 and fibronectin and NF-kappaB DNA binding activity[1]

Solubility Information

Solubility	DMSO: 22.5 mg/mL (37.72 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.35 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	1.6764 mL	8.3818 mL	16.7636 mL
5 mM	0.3353 mL	1.6764 mL	3.3527 mL
10 mM	0.1676 mL	0.8382 mL	1.6764 mL
50 mM	0.0335 mL	0.1676 mL	0.3353 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

Extract of Cassiae Semen and its major compound inhibit S100b-induced TGF-beta1 and fibronectin expression in mouse glomerular mesangial cells.Eur J Pharmacol. 2010 Sep 1;641(1):7-14.