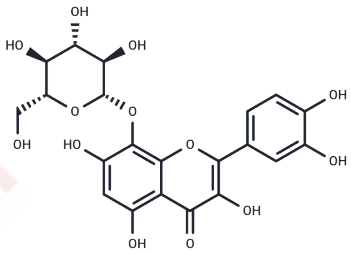
Data Sheet (Cat.No.TN1712)

TargetMol

Gossypin

Chemical Properties



CAS No. : 652-78-8

Formula: C21H20O13

Molecular Weight: 480.38

Storage: Store at low temperature,Store under nitrogen
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	Gossypin has antidiabetic, antioxdiant, anticonvulsant, anti-allergic, antiinflammatory, antinociceptive, cytotoxic and antibacterial activities; it inhibits the NF-kappaB activation pathway, which may explain its role in the suppression of inflammation, carcinogenesis, and angiogenesis.
Targets(IC50)	Apoptosis,Bcl-2 Family,NF-κB,Caspase,Aurora Kinase,PARP,S6 Kinase
In vitro	Gossypin is a flavone extracted from Hibiscus vitifolius, which has been reported to exhibit anti-inflammatory, antioxidant, and anticancer activities.?However, the anticancer properties of gossypin and its molecular mechanism of action against gastric cancer have not been fully investigated.?gossypin is an Aurora kinase A (AURKA) and RSK2 inhibitor that suppresses gastric cancer growth.?Gossypin attenuated anchorage-dependent and anchorage-independent gastric cancer cell growth as well as cell migration.?Based on the results of in vitro screening and cell-based assays, gossypin directly binds to and inhibits AURKA and RSK2 activities and their downstream signaling proteins.?Gossypin decreased S phase and increased G2/M phase cell cycle arrest by reducing the expression of cyclin A2 and cyclin B1 and the phosphorylation of the CDC protein.?Additionally, gossypin also induced intrinsic apoptosis by activating caspases and PARP and increasing the expression of cytochrome c. Gossypin is an AURKA and RSK2 inhibitor that could be useful for treating gastric cancer[2].

Solubility Information

Solubility	DMSO: 150 mg/mL (312.25 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 (4.16 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	2.0817 mL	10.4084 mL	20.8169 mL
5 mM	0.4163 mL	2.0817 mL	4.1634 mL
10 mM	0.2082 mL	1.0408 mL	2.0817 mL
50 mM	0.0416 mL	0.2082 mL	0.4163 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

Gossypin protects primary cultured rat cortical cells from oxidative stress- and beta-amyloid-induced toxicity.Arch Pharm Res. 2004 Apr;27(4):454-9.
Wang L , Wang X , Chen H , et al. Gossypin inhibits gastric cancer growth by direct targeting of AURKA and RSK2[J]. Phytotherapy Research, 2019, 33(4).