Data Sheet (Cat.No.TN6508)

TargetMol
A DRUG SCREENING EXPERT

Trachelogenin

Chemical Properties

CAS No.:	34209-69-3
Formula:	C21H24O7
Molecular Weight:	N/A
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Trachelogenin has antiproliferative effect, the mechanism is related to affect the phosphorylation of key proteins such as β-Catenin, c-Myc and GSK3 in the β-Catenin signaling pathway in a concentration-dependent manner.
In vitro	The molecular constituents of Cirsium brachycephalum fruits were identified, quantified and isolated for the first time. METHODS AND RESULTS: The lignan glycoside tracheloside was the main compound, which was transformed quantitatively into its aglycone Trachelogenin by endogenous enzymatic treatment of the fruit. Following this transformation by high performance liquid chromatography (HPLC) hyphenated with UV and mass spectrometry (MS) detections on a quantitative basis, the enzyme-hydrolyzed fruit was found to be the richest raw material containing Trachelogenin (17.2mg/g) reported to date. Thus, the enzyme-hydrolyzed fruit was used to isolate Trachelogenin using preparative HPLC in order to (1) unambiguously confirm its identity by gas chromatography-MS, nuclear magnetic resonance spectroscopy and optical rotation, and (2) investigate its in vitro antiproliferative activities against the SW480 colon adenocarcinoma cell line. CONCLUSIONS: Trachelogenin significantly affected the phosphorylation of key proteins such as β-Catenin, c-Myc and GSK3 in the β-Catenin signaling pathway in a concentration-dependent manner. These changes account for the antiproliferative effects of Trachelogenin.

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Endogenous enzyme-hydrolyzed fruit of Cirsium brachycephalum: optimal source of the antiproliferative lignan trachelogenin regulating the Wnt/β-catenin signaling pathway in the SW480 colon adenocarcinoma cell line. Fitoterapia. 2015 Jan;100:19-26.
1. Endogenous enzyme-hydrolyzed fruit of Cirsium brachycephalum: optimal source of the antiproliferative lignan trachelogenin regulating the Wnt/β-catenin signaling pathway in the SW480 colon adenocarcinoma cell line. Fitoterapia. 2015 Jan;100:19-26.

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