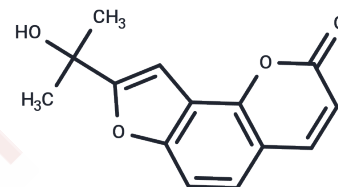


Oroselol

Chemical Properties

CAS No. :	1891-25-4
Formula:	C ₁₄ H ₁₂ O ₄
Molecular Weight:	244.24
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	Oroselol, jatamansinol, nardostachysin, jatamansinone and nardosinone are Nardostachys jatamansi rhizome extract marker compounds.
Targets(IC50)	Akt,PI3K
In vitro	Glioblastoma has been reckoned as the prime cause of death due to brain tumours, being the most invasive and lethal. Available treatment options, i.e. surgery, radiotherapy, chemotherapy and targeted therapies are not effective in improving prognosis, so an alternate therapy is insistent. Plant based drugs are efficient due to their synergistic action, multi-targeted approach and least side effects. METHODS AND RESULTS: The anti-tumorous potential of Nardostachys jatamansi rhizome extract (NJRE) on U87 MG cell line was evaluated through various in vitro and in silico bio-analytical tools. NJRE had a strong anti-proliferative effect on U87 MG cells, Its IC50 was 33.73±3.5, 30.59±3.4 and 28.39±2.9 µg/mL, respectively after 24, 48 and 72 h. NJRE at 30 µg/mL induced DNA fragmentation, indicating apoptosis, early apoptosis began in the cells at 20 µg/mL, whereas higher doses exhibited late apoptosis as revealed by dual fluorescence staining. NJRE at 60 and 80 µg /mL caused a G0/G1 arrest and at 20 and 40 µg/mL showed excessive nucleation and mitotic catastrophe in the cells. Immunoblotting validated the apoptotic mode of cell death through intrinsic pathway. NJRE was harmless to normal cells. In silico docking of NJRE marker compounds: Oroselol, jatamansinol, nardostachysin, jatamansinone and nardosinone have revealed their synergistic and multi-targeted interactions with Vestigial endothelial growth factor receptor 2 (VEGFR2), Cyclin dependent kinase 2 (CDK2), B-cell lymphoma 2 (BCL2) and Epidermal growth factor receptor (EGFR). CONCLUSIONS: A strong dose specific and time dependent anti-tumorous potential of NJRE on U87 MG cells was seen. The extract can be used for the development of safe and multi-targeted therapy to manage glioblastoma, which has not been reported earlier.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0943 mL	20.4717 mL	40.9433 mL
5 mM	0.8189 mL	4.0943 mL	8.1887 mL
10 mM	0.4094 mL	2.0472 mL	4.0943 mL
50 mM	0.0819 mL	0.4094 mL	0.8189 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

Strong Anti-tumorous Potential of Nardostachys jatamansi Rhizome Extract on Glioblastoma and In Silico Analysis of its Molecular Drug Targets. *Curr Cancer Drug Targets*. 2017;17(1):74-88.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481