Product Data Sheet

Product Name: Iristectorin B
Cat. No.: GC36331

Chemical Properties

Cas. No.	94396-09-5		
SMILES	O=C1C(C2=CC=C(O)C(OC)=C2)=COC3=CC(O[C@@H]4[C@@H]([C@H]([C@@H]([C@@H](CO)O4)O)O)O)=C(OC)C(O)=C13		
Formula	$C_{23}H_{24}O_{12}$	M.Wt	492.43
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Iristectorin B		

Protocol

Cell experiment [1]:

Cell lines	PC12 cells

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Preparation Method	PC12 cells were cultured in high-glucose DMEM medium supplemented with 10% fetal bovine serum (FBS) and 1% Penicillin/Streptomycin at 37℃ in the presence of 5% CO_2. 100μl of sugar-free EBSS solution containing 10mM Na_2S2O_4 was added and incubated for 2h. The cells were replaced with normal medium for reoxygenation and continued to be cultured for 24h, constituting an induced OGD/R injury model to simulate ischemic brain injury. OGD/R was supplemented with normal culture medium containing Iristectorin B 6.25μM, 12.5μM, and 25μM for 24h. The, cell viability was analyzed.
Reaction Conditions	6.25μM, 12.5μM, and 25μM; 24h
Applications	Iristectorin B treatment enhanced the cell viability of PC12 cells after OGD/R injury.

Background

Iristectorin B is a natural isoflavone from Iris tectorum with anticancer effects[1]. Iristectorin B can exert anti-inflammatory activity by inhibiting the production of NO induced by lipopolysaccharide (LPS)[2]. Iristectorin B is widely used as an internal reference to develop ionic liquid ultrasonic-assisted extraction methods for the extraction and separation of related compounds[3].

In vitro, Iristectorin B (25μM) treatment for 24 hours significantly enhanced the survival of PC12 cells after glucose oxygen deprivation/reoxygenation (OGD/R) treatment, reduced cell apoptosis, and significantly decreased the expressions of TFR1, HMOX1, and SLC3A2[4].

References:
[1] Ruan L J, Yan B X, Wu Y Q, et al. Integrated Chemometric and Spectrum-effect analysis discriminates Belamcanda chinensis and Iris tectorum in treating A549 lung Cancer cells[J]. Journal of Chromatography B, 2025: 124875.
[2] Gao B, Ma Y, Zhang L, et al. Identification and characterization of the chemical components of Iris tectorum Maxim. and evaluation of their nitric oxide inhibitory

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activity[J]. Rapid communications in mass spectrometry, 2021, 35(1): e8959.
[3] Sun Y, Li W, Wang J. Ionic liquid based ultrasonic assisted extraction of isoflavones from Iris tectorum Maxim and subsequently separation and purification by high-speed counter-current chromatography[J]. Journal of Chromatography B, 2011, 879(13-14): 975-980.
[4] Zheng M, Zhou M, Lu T, et al. TMT and PRM Based Quantitative Proteomics to Explore the Protective Role and Mechanism of Iristectorin B in Stroke[J]. International Journal of Molecular Sciences, 2023, 24(20): 15195.

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