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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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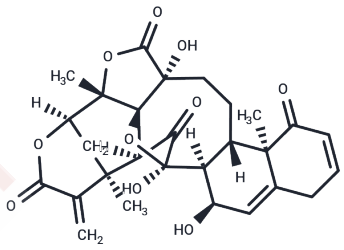
Data Sheet (Cat.No.TN4774)

TargetMol

Physalin A

Chemical Properties



CAS No. : 23027-91-0

Formula: C28H30O10

Molecular Weight: 526.53

Appearance: no data available

Storage: keep away from moisture,keep away from direct sunlight,store at low temperature
store at -20°C

Biological Description

Description	Physalin A is an anti-inflammatory compound isolated from P. alkekengi with anti-fibrotic effects, regulating the Nrf2 pathway through ERK and p38 to induce detoxification enzymes. Physalin A blocks the activation of the NF-kappaB signaling pathway. Physalin A reduces mammosphere formation by reducing the expression of the GLI1 gene and the YAP1 gene.
Targets(IC50)	Apoptosis,Autophagy
In vitro	To detect the growth inhibition effects of Physalin A on different human tumor cell lines (HT1080 fibrosarcoma, A375-S2 melanoma, HepG2 hepatoma, HeLa cervical carcinoma, A549 alveolar basal epithelial, U937 histocytic lymphoma, HCT116 colon cancer, A431 epidermoid carcinoma, MCF7 breast cancer, and HL60 promyelocytic leukemia cells), the cells were cultured with 0, 10, 20, 40, and 80 μM Physalin A for 24 h. HT1080 and A375-S2 cells were the most sensitive tumor cell lines among those used. Physalin A inhibited HT1080 cell growth in a time- and dose-dependent manner with an IC50 value (at 24 h) of 10.7 μM. [1]
In vivo	After anesthetization with 1% pentobarbital (100 μl/10 g body weight, intraperitoneal administration), 24 mice were randomly selected and grouped (the DMM group and the DMM + Physalin A group) for destabilized medial meniscus (DMM) surgery. Three groups were administered intra-articular injections with different treatments, twice per week. The sham and DMM groups received 10 μl of the vehicle (30% PEG300, 5% DMSO, and ddH2O), whereas the DMM + Physalin A group received 10 μl of Physalin A (1 mg/kg body weight). Physalin A decreasing MMP13 production and increasing collagen II and aggrecan production in the in vivo mouse OA model. The OARSI score also indicated that injecting Physalin A into the knee joint cavity could ameliorate the progression of OA in the mouse model. [2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8992 mL	9.4961 mL	18.9923 mL
5 mM	0.3798 mL	1.8992 mL	3.7985 mL
10 mM	0.1899 mL	0.9496 mL	1.8992 mL
50 mM	0.038 mL	0.1899 mL	0.3798 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.

Reference

He H, et al. Physalin A induces apoptotic cell death and protective autophagy in HT1080 human fibrosarcoma cells. J Nat Prod. 2013 May 24;76(5):880-8.