

Catalog Number: CM12393

## 产品信息

**Catalog Number:**  
CM12393

**CAS号:**  
17429-69-5

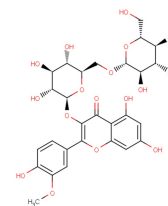
**分子式:**  
C<sub>28</sub>H<sub>32</sub>O<sub>17</sub>

**主要靶点:**  
MMP|ERK|JNK

**主要通路:**  
MAPK 信号通路|MAPK 信号通路|蛋白酶体

**分子量:**  
640.54

**溶解度:**  
DMSO:50 mg/mL (78.06 mM)



## 体外活性

Astragaloside IV (10、20、40 ng/mL) 抑制非小细胞肺癌 (NSCLC) 细胞增殖, 而低浓度的Astragaloside IV (1、2.5、5 ng/mL) 对细胞活性无明显的细胞毒性。此外, Astragaloside IV的联合治疗显著提高了NSCLC细胞对顺铂的化疗敏感性。在分子水平上, Astragaloside IV联合顺铂治疗显著抑制了B7-H3的mRNA和蛋白质水平。Astragaloside IV抑制MDA-MB-231乳腺癌细胞的活力和侵袭能力, 抑制有丝分裂原激活蛋白激酶 (MAPK) 家族成员ERK1/2和JNK的激活, 并下调基质金属蛋白酶 (MMP)-2和-9的表达。

## 体内活性

Astragaloside IV (10, 20 mg/kg, 口服) 显示出强大的能力, 预防由短暂脑缺血及再灌注引起的认知缺陷。Astragaloside IV (10mg/kg) 和Astragaloside IV (20mg/kg) 能显著降低相较于模型组这些细胞因子的水平。Astragaloside IV显著抑制TLR4及其下游蛋白的水平, 表明MyD88依赖和独立途径在Astragaloside IV的抗炎效应中扮演重要角色。Astragaloside IV减轻NLRP3与裂解的caspase-1表达, 并降低Iba1蛋白表达[1]。在小鼠模型中, 高剂量的Astragaloside IV组在48小时存活率上显著提高[60%(9/15)对比13.3%(2/15), P<0.05], 血清ALT和AST水平显著下降 (P<0.01), 肝脏组织病理学指数和肝细胞凋亡程度显著降低 (P<0.01), 以及肝匀浆中MDA含量显著减少 (P<0.01) 和SOD活性显著增加。

## 动物实验

Transient cerebral ischemia and reperfusion is prepared by BCCAO, as BCCAO is considered an ideal model to study transient cerebral ischemia and reperfusion injury-mediated inflammatory response. Mice are randomly divided into the Sham, Model, Astragaloside IV (10 mg/kg) and Astragaloside IV (20 mg/kg) treatment groups. The Astragaloside IV treatment groups are intragastrically administered 7 days before the surgery and terminated on the day of sacrifice. On the day of the surgery, Astragaloside IV is administered 2 h prior to ischemia. The Sham-operated and Model groups are treated with distilled water. After the mice are anesthetized with an intraperitoneal injection of chloral hydrate (350 mg/kg), the bilateral common carotid arteries are exposed and carefully separated with a small ventral neck incision and occluded twice (20 min each) with ligated surgical silk as described previously with minor modifications. There is a 10 min reperfusion period between the two occlusion periods (ischemia 20 min ? reperfusion 10 min ? ischemia 20 min). Sham-operated mice are subjected to the same surgical operation without the surgical silk ligation. Mouse body temperature is maintained at 37±0.5°C during the surgery with heating equipment until recovery from the anesthesia.

## 细胞实验

Cell viability is determined by CCK-8 assay. To be brief, cultured NSCLC cells are seeded into 96-well plates at the density of 4×10<sup>4</sup> (cells/well). Then 10 μL/well CCK8 solution is added and incubated in dark at 37°C for another 2 h. The absorbance is determined with the wavelength of 490 nm.

## 储存

keep away from direct sunlight | Powder: -20°C for 3 years | In solvent: -80°C for 1 year | Shipping with blue ice.