

Cryptotanshinone

货号: C6361

储存条件: 粉末-20°C 可保存 3 年; 液体-80°C 可保存 12 月。

产品描述

STAT3, the protein most linked to tumorigenesis in STAT family and regarded as a target for cancer therapy, is constitutively activated in most human solid tumors and is involved in the proliferation, angiogenesis, immune evasion, and anti-apoptosis of cancer cells. Cryptotanshinone, isolated from the roots of *Salvia miltiorrhiza* Bunge (Danshen), is a STAT3 inhibitor with IC₅₀ of 4.6μM for inhibition of STAT3 activity of HCT-116 cells in luciferase assay. The STAT3 activity could be inhibited by 7μM cryptotanshinone in MDA-MB-231, HeLa, DU 145, and HCT-116 cells after 24-h treatment in luciferase assay. Cryptotanshinone could attenuated phosphorylation level of STAT3 at Tyr705 site in DU145 cells in a dose (5-10μM, 24h)- and time (7μM, 0.25-4h)-dependent manner, with suppression of JAK2 phosphorylation as a secondary effect of cryptotanshinone treatment, but showed inhibition of STAT3 at Ser727 site at concentration of 10μM. Dose-dependent inhibition of expression of STAT3-targeted proteins, including cyclin D1, surviving and Bcl-xL, could be observed in DU145 cells treated with 5-10μM Cryptotanshinone. Accumulation of cell cycle G0-G1 phase can be induced by Cryptotanshinone at 7 or 10μM, and increased apoptosis could be observed in DU145 cells treated with 15μM. Cryptotanshinone at concentration of 7μM could selectively inhibited growth inhibition of DU145 prostate cancer cell line that expressing constitutively active STAT3 time-dependently in 12-96h, but not cells lack constitutively active STAT3 such as PC3 and LNCaP. Cryptotanshinone can colocalize with STAT3 molecules in the cytoplasm and inhibit the formation of STAT3 dimers. Intraperitoneal injection with 50mg/kg Cryptotanshinone inhibited the growth of human colon tumor xenograft in nude mice.

产品信息

CAS 号	35825-57-1	
分子式	C ₁₉ H ₂₀ O ₃	
分子量	296.36	
溶解度	DMSO	10.0 mg/mL (33.7 mM) warming
	Water	insoluble

