



Pemetrexed

货号: P1667

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

The biologically active form of folic acid is tetrahydrofolate which is essential for DNA synthesis. Tetrahydrofolate is oxidised to dihydrofolate during DNA synthesis and is regenerated to its active form by the enzyme dihydrofolate reductase. Inhibition of this enzyme prevents DNA synthesis and causes failure of cell renewal. This leads to breaks in epithelial surfaces resulting in oropharyngeal and intestinal ulceration. Pemetrexed is a new type of anti-folate and anti-metabolic drug, acting on TS, DHFR and GARFT, with Ki of 1.3nM, 7.2nM and 65nM in cell-free assay, respectively. Pemetrexed is used in CCRF-CEM leukemia, GC3/C1 colon cancer, and HCT-8 cecum cancer cells with anti-proliferation activity with IC50 of 25 nM, 34 nM, and 220 nM, respectively. In addition, the combination of thorax and hypoxanthine on the above three cell lines completely reverses the cytotoxicity caused by pemetrexed. SOCS-1 (suppressor of cytokine signaling 1, an endogenous inhibitor of intracellular signaling pathways) gene delivery cooperated with cisplatin plus pemetrexed to inhibit cell proliferation, invasiveness and induction of apoptosis in MPM cells. Administration of the pemetrexed 6 h prior to administration of 5-fluorouracil resulted in additive growth delay of the MX-1 tumor. In addition, the simultaneous combination of MTA administered daily for 5 days for 2 weeks with administration of gemcitabine resulted in greater-than-additive H460 TGD.

产品信息

CAS 号	137281-23-3	
分子式	C20H21N5O6	
分子量	427.41	
溶解度	DMSO	98.0 mg/mL (229.3 mM)

