

Catalog Number: CM00956

产品信息

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CM00956

CAS号:
127-07-1

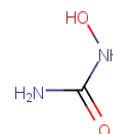
分子式:
CH₄N₂O₂

主要靶点:
HIV
Protease|Autophagy|Apoptosis|DNA/RNA
Synthesis

主要通路:
DNA 损伤和修复|蛋白酶体|微生物
学|细胞周期|凋亡|自噬

分子量:
76.05

溶解度:
H₂O:55 mg/mL (723.21
mM);DMSO:60 mg/mL (788.95
mM)



体外活性

Hydroxyurea能够抑制HIV-1复制。体外实验显示，对激活的PBMC中HIV-1实验室株，Hydroxyurea的90%抑制浓度（IC₉₀）为0.4 mM。研究还发现Hydroxyurea与核苷逆转录酶抑制剂二氮嘧啶（didanosine）具有协同增效作用，可通过减小脱氧核苷三磷酸池大小来抑制激活PBMC中的HIV-1复制。Hydroxyurea已被证实能增敏对二氮嘧啶耐药的突变体[1][2]。Hydroxyurea在镰状细胞性贫血治疗中显示出活性，它通过增加胎儿血红蛋白的产量，从而减少了患者的溶血现象。Hydroxyurea通过抑制核糖核苷酸还原酶（负责核糖核苷酸向脱氧核糖核苷酸转换的速率限制酶）展现其细胞静止效果，促进细胞分裂在S期被阻断[1]。

体内活性

Hydroxyurea 治疗在17周内持续降低WBC(白细胞)和ANC(绝对中性粒细胞)计数，但并未改善贫血症状。而以每公斤体重50 mg剂量的 Hydroxyurea 较之于对照化合物处理的镰状细胞鼠，WBC和ANC计数减少，但对贫血无改善效果[5]。

细胞实验

Erythroid cells obtained from peripheral blood of the same patients(Thirteen β-Thal/HbE patients are treated with hydroxyurea orally for 2 years at a starting dose of 5 mg/kg/day for 5 days/week with escalation to a maximum of 10 mg/kg/day) 1 year after they had stopped hydroxyurea treatment are treated with hydroxyurea in vitro.Treatment of cells performs in primary culture with 30 μM hydroxyurea for 96 hours. (Only for Reference)

储存

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