For Research Use Only

1-Aminobenzotriazole

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Catalog Number: CM01435

产品信息

Catalog Number:
CM01435

CAS号:
1614-12-6

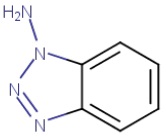
分子式:
$C_6H_6N_4$

主要靶点:
P450

主要通路:
代谢

分子量:
134.14

溶解度:
DMSO:125 mg/mL (931.86 mM)



体外活性

体外实验中，1-Aminobenzotriazole能在Sprague-Dawley雄性大鼠的肝脏和肾脏微粒体中迅速且高效地破坏P450。无论是肝脏或肾脏微粒体，1-Aminobenzotriazole的作用均可在5分钟内检测到P450的明显破坏，最大破坏发生在与1-Aminobenzotriazole共同孵育10分钟内，表明P450的破坏过程在体外实验中快速进行，并且1-Aminobenzotriazole引起的P450破坏具有浓度依赖性。对于肝脏微粒体，约70%的P450最大破坏需要等于或大于10 mM的1-Aminobenzotriazole浓度。对于肾脏微粒体，约80%的P450最大破坏也需要等于或大于10 mM的1-Aminobenzotriazole浓度。在肝脏和肾脏中，P450含量及P450依赖的活性均显著下降。

体内活性

男性斯普拉格-道利大鼠经1-Aminobenzotriazole预处理（0-100 mg/kg ip）后，从其肝脏和肾脏中提取微粒体和胞浆进行了制备。1-Aminobenzotriazole以100 mg/kg的剂量给药后，在2小时内显著降低了肝脏和肾脏中的P450含量；这种P450的减少在两种组织中至少持续了48小时。1-Aminobenzotriazole诱导的P450破坏是剂量依赖性的。当1-Aminobenzotriazole的剂量等于或大于10 mg/kg时，肝脏P450的最大破坏率约为80%；当1-Aminobenzotriazole的剂量等于或大于50 mg/kg时，肾脏P450的最大破坏率也约为80%[1]。

动物实验

For in vivo experiments, rats received ABT (0-100 mg/kg) dissolved in normal saline at a concentration of 1-50 mg/ml.?ABT was administered ip and rats were killed at various times thereafter.?Total injection volume was either 1 or 2 ml/kg and control rats received 2 ml saline/kg[1].

细胞实验

Animals were killed by cervical dislocation and decapitation.?Kidneys and livers were excised quickly and placed in ice cold 1.15% KC].?Renal inner medulla and papilla were discarded.?Renal cortex and liver were minced and homogenized in 3 vol of 100 mM phosphate buffer (pH 7.4) containing 250 mM sucrose and 1.5 mM EDTA.?Kidney and liver homogenates were centrifuged at 10000g for 20 min. The resulting supematant was centrifuged at 105000g for 60 min. The 105000g supematant (cytosol) was used for the determination of glutathione S-transferase activity .?The microsomal fraction (pellet) was resuspended in phosphate buffered sucrose (pH 7.4) and centrifuged at 105000g for 60 min. The resulting microsomal fraction was resuspended in phosphate-buffered sucrose (pH 7.4) containing 20% glycerol to a final concentration of l0-20 mg protein per milliliter.?The microsomal fraction was used for the determination of P450, cytochrome b5, and NADPH-cytochrome-c reductase activities.?Microsomes from control or ABT-treated rats were either analyzed on the day of preparation or stored overnight at -80 C. In all cases, control microsomes were handled identically with ABT-treated microsomes.?P450 content in control and ABT-treated microsomes was not affected by overnight storage[1].

储存

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