Diethyl pyrocarbonate

Cat. No.: HY-D0846

CAS No.: 1609-47-8

Molecular Formula: $C_6H_{10}O_5$

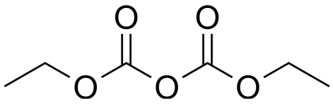
Molecular Weight: 162.14

Target: Biochemical Assay Reagents

Pathway: Others

Storage:

Pure form	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (616.75 mM; Need ultrasonic)

H_2O : ≥ 33.33 mg/mL (205.56 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	6.1675 mL	30.8375 mL	61.6751 mL
5 mM	1.2335 mL	6.1675 mL	12.3350 mL
10 mM	0.6168 mL	3.0838 mL	6.1675 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Diethyl pyrocarbonate is a potent, orally active, non-specific chemical inhibitor of RNase. Diethyl pyrocarbonate has been useful in vitro as an agent relatively specific for binding to imidazole of histidine. Diethyl pyrocarbonate inhibits central chemosensitivity in rabbits. Diethyl pyrocarbonate can modify Ser, Thr, His and Tyr residues. Diethyl pyrocarbonate can be used for modeling[1].

In Vivo

Diethyl pyrocarbonate (220 mg/kg, i.g., twice a week for 4 weeks) combined with ammonia (42 mg/kg) induces lung tumours in HSL, HSS, Kid: CFLP and Lati: CFLP mice[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. E E Nattie. Diethyl pyrocarbonate (an imidazole binding substance) inhibits rostral VLM CO2 sensitivity. J Appl Physiol (1985). 1986 Sep;61(3):843-50.

[2]. Uzvölgyi E, et al. In vivo formation of a carcinogenic substance from diethyl pyrocarbonate in the presence of ammonia. Arch Toxicol Suppl. 1985;8:490-3.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA