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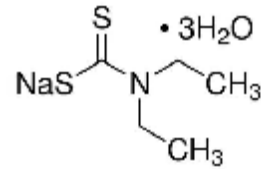
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DIECA (茉莉酸合成途径抑制剂)

别名: Sodium diethyldithiocarbamate trihydrate

中文名: 二乙基二硫代氨基甲酸钠三水合物

CAS 号: 20624-25-3 (C₂H₅)₂NCSSNa · 3H₂O MW 225.31



● Store at RT; Ship at RT

● Specifications

Purity..... ≥98.5%

Appearance.....white to off-white power or flaky crystal

Solubility..... soluble in water, ethanol, methanol

● 作用机理:

Sodium diethyldithiocarbamate (DIECA) has been used as a JA biosynthesis inhibitor in plants and likely inhibits the JA pathway by shunting 13(S)-hydroperoxylinolenic acid to 13-hydroxylinolenic, thereby sharply reducing the precursor pool leading to cyclization and eventual synthesis of JA (Farmer, Caldelari, Pearce, Walker-Simmons, & Ryan, 1994).

● 母液配制方法:

1. 20 ml 0.2 M DIECA 配制（水溶解）:

称取 0.9 g 粉末置于 50 ml 尖底螺口离心管中, 拧紧管盖, 加入蒸馏水定容至 20 ml, 漩涡搅拌至彻底混匀, 溶液应该为接近澄清透明, 0.22 μm 水系滤膜抽滤后-20℃贮存。注意: DIECA 溶液配制时不能开口搅拌混匀, 因为溶液吸收空气中的二氧化碳, 会使溶液变浑浊, 无法完全溶解。

2. 20 ml 0.2 M DIECA 配制（DMSO 溶解）:

使用 DMSO 可以配制成完全澄清透明的溶液, 溶解方法同 1。0.22 μm 有机系滤膜抽滤后-20℃贮存。

● 文献:

1. Farmer, E. E., Caldelari, D., Pearce, G., Walker-Simmons, M. K., & Ryan, C. A. (1994). Diethyldithiocarbamic acid inhibits the octadecanoid signaling pathway for the wound induction of proteinase inhibitors in tomato leaves. *Plant Physiology*, 106(1), 337– 342.

2. Yinghui Li, Lina Qiu, Qiang Zhang, Xiangxi Zhuansun, Huifang Li, Xin Chen, Tamar Krugman, Qixin Sun, Chaojie Xie. (2020). Exogenous sodium diethyldithiocarbamate, a Jasmonic acid biosynthesis inhibitor, induced resistance to powdery mildew in wheat. *Plant Direct*. Volume 4, Issue4, e00212.