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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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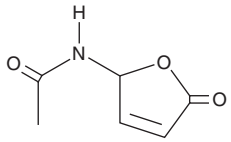
PRODUCT INFORMATION

5-Acetamide-Butenolide

Item No. 40867

CAS Registry No.: 16275-44-8
Formal Name: N-(2,5-dihydro-5-oxo-2-furanyl)-acetamide
Synonyms: 4-acetamido-4-hydroxy-2-Butenoic Acid γ-lactone, NSC 114350
MF: $C_6H_7NO_3$
FW: 141.1
Purity: ≥70%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

5-Acetamide-butenolide is supplied as a solid. A stock solution may be made by dissolving the 5-acetamide-butenolide in the solvent of choice, which should be purged with an inert gas. 5-Acetamide-butenolide is soluble in ethanol, methanol, dichloromethane, and DMSO

Description

5-Acetamide-butenolide is a mycotoxin that has been found in *Fusarium* and has pro-oxidant activity.[1-3] It disrupts the mitochondrial membrane potential in primary neonatal rat cardiomyocytes when used at a concentration of 50 µg/ml.[2] 5-Acetamide-butenolide also induces the production of thiobarbituric acid reactive substances (TBARS) in isolated rat myocardial mitochondria in a concentration-dependent manner, an effect that can be reduced by glutathione (GSH). It increases the production of reactive oxygen species (ROS) and decreases the levels of GSH in, as well as reduces the viability of, HepG2 cells when used at concentrations ranging from 25 to 100 µg/ml.[3] 5-Acetamide-butenolide is toxic to mice (LD_{50} = 43.6 mg/kg, i.p.).[1]

References

1. Yates, A.S., Tookey, H.L., Ellis, J.J., *et al.* Mycotoxins produced by *fusarium nivale* isolated from tall fescue (*festuca arundinacea* schreb.). *Phytochemistry* **7(1)**, 139-146 (1968).
2. Wang, Y.-M., Liu, J.-B., and Peng, S.-Q. Effects of *Fusarium* mycotoxin butenolide on myocardial mitochondria in vitro. *Toxicol. Mech. Methods* **19(2)**, 79-85 (2009).
3. Wang, Y.-M., Peng, S.-Q., Zhou, Q., *et al.* Depletion of intracellular glutathione mediates butenolide-induced cytotoxicity in HepG2 cells. *Toxicol. Lett.* **164(3)**, 231-239 (2006).

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