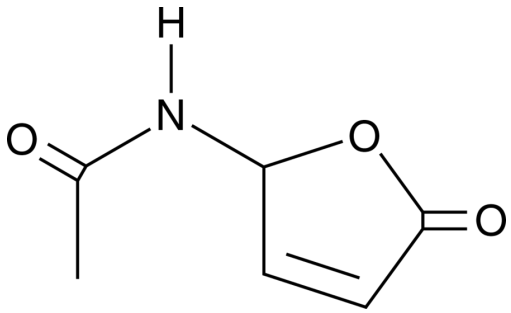
Product Data Sheet

Product Name: 5-Acetamide-Butenolide
Cat. No.: GC91540

Chemical Properties

Cas. No.	16275-44-8		
Formula	$C_6H_7NO_3$	M.Wt	141.1
Solubility	Dichloromethane: soluble,DMSO: soluble,Ethanol: soluble,Methanol: soluble	Storage	-20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

5-Acetamide-butenolide is a mycotoxin that has been found in *Fusarium* and has pro-oxidant activity.[1,2,3] 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]

Caution: Product has not been fully validated for medical applications. For research use only.
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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.)Phytochemistry7(1)139-146(1968).
[2].Wang, Y.-M., Liu, J.-B., and Peng, S.-Q.Effects of Fusarium mycotoxin butenolide on myocardial mitochondria in vitroToxicol. Mech. Methods19(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 cellsToxicol. Lett.164(3)231-239(2006).

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