



Alloxan monohydrate

Chemical Properties

CAS No.: 2244-11-3
Formula: C4H4N2O5
Molecular Weight: 160.09

Appearance: N/A

Storage: 0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Alloxan Monohydrate is a glucose analog used to induce diabetes by destroying beta-cells.		
Targets(IC ₅₀)	Proteasome: None		
In vitro	Alloxan caused the accumulation of ubiquitinated proteins in NRK cells through the inhibition of the proteolytic activities of the proteasome. Alloxan directly acts on the chymotrypsin- and trypsin-like peptidase activities[1]		

Solubility Information

Solubility	DMSO: 5mg/ml(31.23mM)
	(< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.246 mL	31.232 mL	62.465 mL
5 mM	1.249 mL	6.246 mL	12.493 mL
10 mM	0.625 mL	3.123 mL	6.246 mL
50 mM	0.125 mL	0.625 mL	1.249 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

- 1. Major species differences between humans and rodents in the susceptibility to pancreatic β -cell injury.
- 2. Zhou W , Wei L , Xiao T , et al. Diabetogenic agent alloxan is a proteasome inhibitor.[J]. Biochemical & Biophysical Research Communications, 2017, 488(2).
- 3. Szkuldeshi T. The mechanism of alloxan and streptozotocin action in beta cells of the rat pancreas[J]. Physiol Rev. 2001, 50.

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