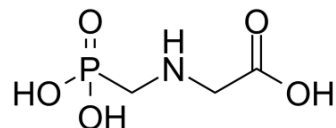


Glyphosate

Cat. No.:	HY-B0863
CAS No.:	1071-83-6
Molecular Formula:	C ₃ H ₈ NO ₅ P
Molecular Weight:	169.07
Target:	Apoptosis; Autophagy
Pathway:	Apoptosis; Autophagy
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 13.89 mg/mL (82.16 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	5.9147 mL	29.5735 mL	59.1471 mL
	5 mM	1.1829 mL	5.9147 mL	11.8294 mL
	10 mM	0.5915 mL	2.9574 mL	5.9147 mL

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

BIOLOGICAL ACTIVITY

Description

Glyphosate is an herbicidal derivative of the amino acid glycine. Glyphosate targets and blocks a plant metabolic pathway not found in animals, the shikimate pathway, required for the synthesis of aromatic amino acids in plants^[1].

In Vitro

Glyphosate is a high-efficiency, low-toxicity, broad-spectrum herbicide. The residues of glyphosate-based herbicides are frequent pollutants in the environment. Glyphosate exposure could interfere with mouse oocyte maturation by generating oxidative stress and early apoptosis. Glyphosate induces early apoptosis and autophagy in mouse oocytes^[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Greim H, et al. Evaluation of carcinogenic potential of the herbicide glyphosate, drawing on tumor incidence data from fourteen chronic/carcinogenicity rodent studies. Crit Rev Toxicol. 2015;45(3):185-208.

[2]. Zhang JW, et al The toxic effects and possible mechanisms of glyphosate on mouse oocytes. Chemosphere. 2019 Dec;237:124435.

Caution: Product has not been fully validated for medical applications. For research use only.

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