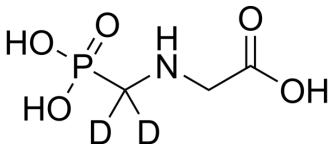
Glyphosate-d_2

Cat. No.:	HY-B0863S
CAS No.:	2733532-11-9
Molecular Formula:	$C_3H_6D_2NO_5P$
Molecular Weight:	171.09
Target:	Apoptosis; Autophagy; Isotope-Labeled Compounds
Pathway:	Apoptosis; Autophagy; Others
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



BIOLOGICAL ACTIVITY

Description	Glyphosate-d_2 is the deuterium labeled Glyphosate. 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	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. 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.

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

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