ELISA Kit for Agricultural Pollutants

Glyphosate ELISA Kit

(Magnetic Particle Format)

◇ The antibody is specific for Glyphosate and does not cross-react with other non-related agricultural compounds.

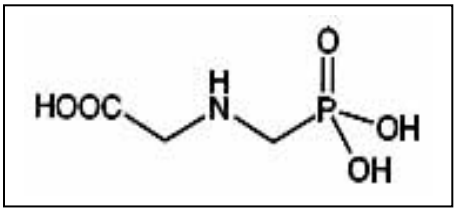
◇ The assay sensitivity is 0.05 ppb. The assay range is between 0.075 ppb and 4.0 ppb. This supersensitive assay allows the determination of Glyphosate in a range of environmental samples (water, soil, sediment, fish plasma, etc.).

◇ No time-consuming sample extraction.

◇ Total time for measurement is less than 90 minutes.

◇ The kit (120 Tests), a magnetic particle format with ready to use reagents, enables faster assay kinetics, super sensitivity, and the simultaneous measurement of multiple samples at a reasonable cost.

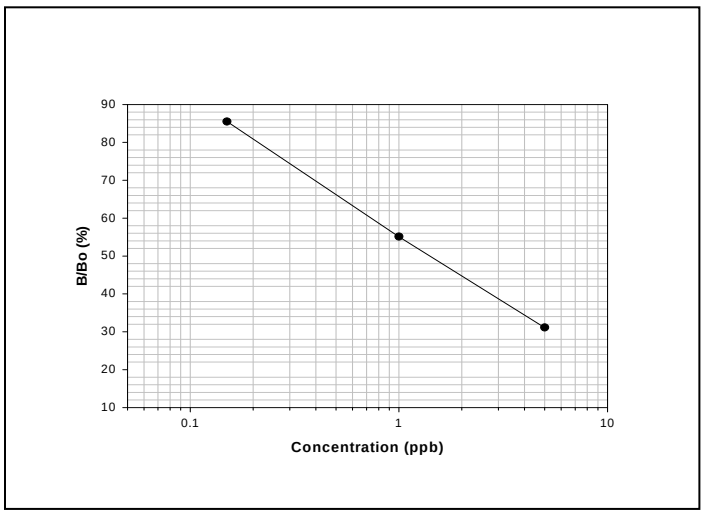
Chemical Structure



Glyphosate is a broad spectrum non-selective herbicide which kills all plants, including grasses, broad leaf and woody plants. Because of it's broad spectrum in action, it is used to control a great variety of annual, biennial, and perennial grasses, sedges, broad leafed weeds, and woody brush. It is also used in fruit orchards, vineyards, conifer plantation and many plantation crops (e.g. coffee, tea, bananas); in pre-crop, and post-weed emergence in a wide range of crops (including soybeans, cereals, vegetables and cotton); on non-crop areas (e.g. road shoulders and rights of way); in cereal stubble; forestry; gardening and horticulture.

Using traditional analytical methods, Glyphosate is extremely difficult to measure in environmental samples. Only a few laboratories have the sophisticated equipment and techniques necessary. This ELISA test kit offers a quick, easy, and cost-effective method to detect Glyphosate in environment samples at the ppt levels.

Glyphosate Standard Curve



Samples containing Glyphosate within the range (0.075-4.0 ppb) can be tested in the assay after filtration and quick derivatization.

ABRAXIS

Basic Test procedure

- Derivatize sample for 10 minutes
- Add 300 uL of sample, and 500 uL of antibody coupled magnetic particles. Vortex.
- Incubate for 30 minutes.
- Add 250 uL of conjugate. Vortex and incubate for 30 minutes.
- Separate using the magnetic separator, decant and wash.
- Add 500 uL of color solution.
- Incubate 20 minutes.
- Stop the reaction and read color at 450 nm. Quantitate results.

Cross-reactivity Pattern

Cross-reactivity of the Abraxis Glyphosate ELISA expressed as the least detectable dose (LDD) which is estimated at 90% B/Bo and at the concentration required to displace 50% (50% B/Bo).

Compound	LDD (ppb)	50% B/Bo (ppb)
Glyphosate	0.10	2.40
Glyphosine	50	3,000
Glufosinate	2,000	70,000
AMPA	35,000	>1,000,000
Glycine	>10,000	>1,000,000

The following compounds demonstrated no reactivity in the Glyphosate Assay when tested at concentrations up to 1,000 ppb: aldicarb, aldicarb sulfoxide, aldicarb sulfone, acetochlor, alachlor, atrazine, ametryn benomyl, butachlor, butylate, captan, carbaryl, carbendazim, carbofuran, 2,4-D, 1,3-dichloropropene, dinoseb, MCPA, metribuzin, metolachlor, PCP, picloram, propazine, simazine, terbufos, thiabendazole, thiophanate-methyl.

Kit Format

Glyphosate ELISA Kit (Magnetic Particle format, 120T) PN 500081

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