ELISA Kit for Agricultural Pollutants

Atrazine ELISA Kit

(Magnetic Particle Format)

- ♦ The antibody binds Atrazine and related Triazines and does not cross-react with other non-related agricultural compounds.
- ♦ The assay range is between 0.10 ppb and 5.0 ppb. This supersensitive assay allows the determination of Triazines in a range of environmental samples (water, soil, sediment, fish plasma, etc.).
- ♦ Direct sample. No time-consuming sample extraction or the use of hazardous organic solvents.
- ♦ Total time for measurement is less than 45 minutes.
- ♦ The kit (100 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



Atrazine is a broad-leaf, pre-emergence herbicide. It is one of the most widely used herbicides around the world. Atrazine is the leading member of a class of triazine ring-containing herbicides that includes simazine and terbutylazine. Atrazine has been found to be less biodegradable than other less substituted striazine ring compounds with a half life ranging from 1 week to 1 year in different soils. Because of their relative wide application, their relative hiah persistence, and their ability to leach through the soil, they can be detected in rain, surface water and ground water. The application of Atrazine is prohibited in several countries, in the U.S., according to the USEPA SWDA drinking water guidelines, the MCL for atrazine is not allowed to exceed 3 ppb.

This ELISA test kit detects Atrazine and related Triazines in environment samples at the ppt levels.



Atrazine Standard Curve

Samples containing Atrazine within the dynamic range (0.1-5.0 ppb) can be directly tested in the assay after filtration.



Basic Test procedure

- Add 200 uL of sample, 250 uL enzyme conjugate, and 500 uL of antibody coupled magnetic particles. Vortex.
- Incubate for 15 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 Atrazine 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).

	LDD	50% B/Bo
Compound	(ppb)	(ppb)
Atrazine	0.050	0.70
Propazine	0.084	1.18
Ametryn	0.022	0.44
Prometryn	0.052	0.80
Prometon	0.140	2.20
Desethyl Atrazine	0.250	4.75
Terbutryn	0.340	210
Simazine	0.76	3.40
Cyanazine	0.800	47
2-Hydroxy Atrazine	0.960	20
Desisopropyl Atrazine	29	970

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

Kit Format

Atrazine ELISA Kit (Magnetic Particle format, 100T) PN 500001 Atrazine ELISA Kit (Microtiter Plate format, 96T) PN 520005 Atrazine ELISA Kit (Fast Screen format, 10T) PN 550011 Atrazine ELISA Kit (Fast Screen format, 25T) PN 550001

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