

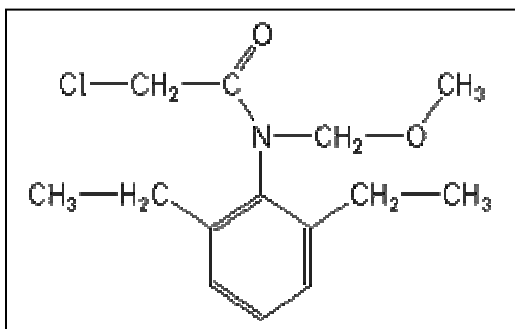
ELISA Kit for Agricultural Pollutants

Alachlor ELISA Kit

(Magnetic Particle Format)

- ◇ The antibody binds Alachlor and related Chloroacetanilides 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 Alachlor 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 60 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.

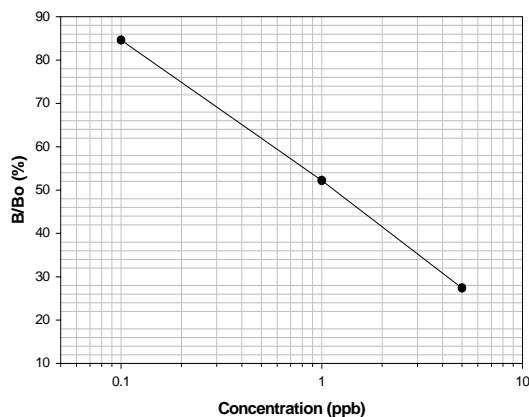
Chemical Structure



Alachlor is a selective broad-leaf, pre-emergence herbicide used for the control of grasses in corn, beans, soybeans, and other crops. Alachlor belongs to the class of Chloroacetanilide herbicides that includes Metolachlor and Acetochlor. Alachlor has been found to be fairly mobile through the soil and under certain conditions can contaminate ground water, but it is mostly found in surface water. Alachlor is a restricted use pesticide.

This ELISA test kit detects Alachlor and related Chloroacetanilides in environment samples at the ppt levels.

Alachlor Standard Curve



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



- Add 200 uL of sample, 250 uL enzyme conjugate, and 500 uL of antibody coupled magnetic particles. Vortex.
- 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 Alachlor 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)
Alachlor	0.04	0.72
Acetochlor	0.15	10
Butachlor	0.14	20
Metolachlor	0.19	25
Metalaxyl	12	1,700
Alachlor Sulfonic Acid	16	>10,000
Propachlor	1,500	>10,000
Alachlor Oxalinic Acid	>10,000	>10,000

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

Kit Format

Alachlor ELISA Kit (Magnetic Particle format, 100T) PN 500071

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