

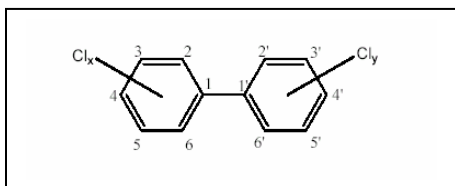
# ***ELISA Kit for Environmental Pollutants***

## ***Polychlorinated Biphenyls (PCBs)***

### ***PCB ELISA Kit***

- ◇ The antibody binds Polychlorinated biphenyls (PCBs) as mixtures (aroclors) and does not cross-react with other non-related industrial compounds.
- ◇ The assay range is between 0.25 ppb and 25 ppb (based on aroclor 1254). This supersensitive assay allows the determination of PCBs in a wide range of environmental samples (water, soil, sediment, fish tissue, etc.).
- ◇ 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.

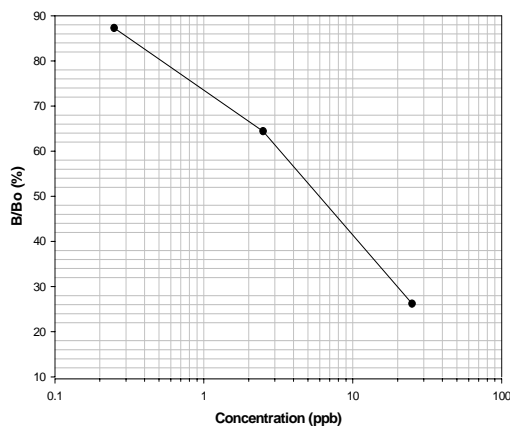
#### **Chemical Structure**



Polychlorinated biphenyls (PCBs), are a group of synthetic industrial compounds which contain a varying number of chlorine atoms substituted on a biphenyl molecule. Several industrialized countries produced PCBs, which were marketed under various trade names (Aroclors<sup>®</sup>, Kanechlors<sup>®</sup>, etc.). PCBs are chemically inert and stable when heated, these properties had allowed them to persist in the environment for long periods of time. GC/MS, a generally employed method for quantitative PCBs analysis, requires expensive instrumentation as well as complex and time-consuming extraction process with hazardous organic solvent.

This ELISA test kit detects PCBs in environment samples at the ppt levels.

#### **PCB (Aroclor 1254) Standard Curve**



Samples containing PCBs within the dynamic range (0.25-25 ppb) can be directly tested in the assay after filtration.



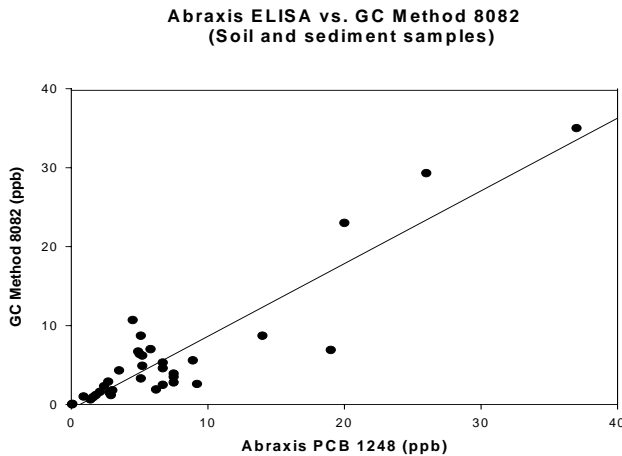
## Cross-reactivity Pattern

Cross-reactivity of the Abraxis PCB 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)
Aroclor 1254	0.11	9.0
Aroclor 1260	0.35	4.4
Aroclor 1248	0.40	18
Aroclor 1242	1.3	38
Aroclor 1262	0.25	4.0
Aroclor 1232	0.60	46
Aroclor 1268	0.36	20
Aroclor 1016	0.46	38
Aroclor 1221	1.6	42

The following compounds demonstrated no reactivity in the PCB Assay at concentrations up to 10,000 ppb: Biphenyl, 2,5-Dichlorophenol, 2,3,5 Trichlorophenol, Di-n-octyl-phthalate.

## Sample Correlation



This ELISA exhibits high correlation with GC Method 8082 ( $r = 0.91$ )

## Kit Format

### Magnetic Particle format and reagents PN 530001

PCB 1254 Calibrator set included, other sets (1268, 1260, 1248, 1242, 1262, 1232, 1016, 1221) available upon request.

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