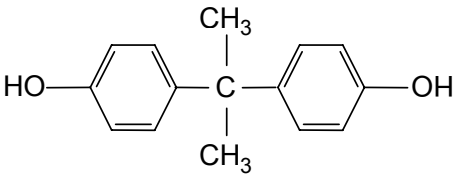
biosense® LABORATORIES

Prod. no.L49000402
Product Description

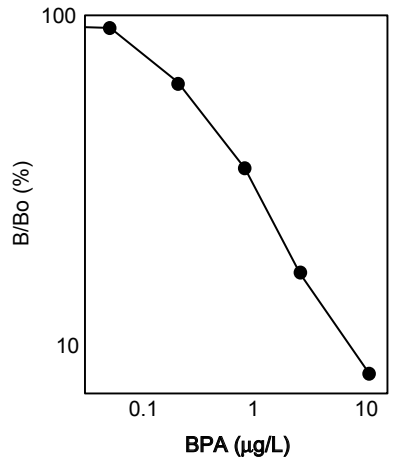
Supersensitive Bisphenol A (BPA) ELISA Kit

Bisphenol A (BPA) is an important industrial chemical that is used primarily as raw material for polycarbonate and epoxy resins. BPA is known to be one of the endocrine disrupting chemicals.



The supersensitive Bisphenol A (BPA) EIA kit easily and specifically detects BPA in environmental samples. GC/MS, a commonly employed method for quantitative BPA analysis, requires expensive instrumentation as well as complex and time consuming extraction process using hazardous organic solvents. With the aid of a simple solid phase extraction this EIA kit detects BPA in environment or in vitro at a ppt level (ng/L).

The analysis is based on a competitive reaction where enzyme-labelled standard BPA competes with free BPA in the sample for binding to a specific monoclonal antibody immobilised to the surface of the microtiter plate or tube. The amount of labelled BPA bound to the plate is determined by addition of a non-coloured substrate which is converted into a coloured product. The colour intensity is measured at 450 nm and is inversely proportional to the amount of BPA in the sample. The assay is calibrated using a standard solution of BPA supplied with the kit.



The Bisphenol A (BPA) EIA kit is suitable for analyses of water samples.

The assay is highly sensitive, **simple and rapid to perform.** The standard curve working range is 0.05-10 µg/L BPA. A simple solid phase extraction protocol is available for samples with very low concentrations of BPA.

The kit is available in microplate (96 wells) format.

**) The Bisphenol A (BPA) EIA kit is licensed from Tokiwa Chemical Industries, Ltd.*

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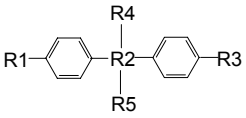
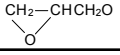
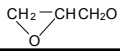
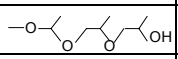
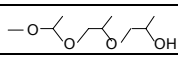
Cross-reactivity pattern

Compound	*Reactivity (%)*
Bisphenol A (BPA)	**100.0**
Diethylhexylphtalate (DEHP)	< 0.05
Nonylphenol (NP)	0.19
17β-Estradiol (E2)	<0.05
Estrone (E1)	<0.05
Linear alkylbenzene sulfonate (LAS)	<0.05
Alkylphenol ethoxylate (APE)	<0.05
Alkyl ethoxylate (AE)	<0.05
Fumic soda	<0.05



No.		R1	R2	R3	R4	R5	CR(%)
1	Bisphenol A (BPA)	OH	C	OH	CH_3	CH_3	100
2	Bisphenol B (BPB)	OH	C	OH	CH_3	C_2H_5	15.6
3	Bisphenol E (BPE)	OH	C	OH	H	CH_3	6.0
4	Bisphenol S (BPS)	OH	SO_2	OH	-	-	0.2
5	BPA Dimethacrylate		C		CH_3	CH_3	0.7
6	BPA Diglycidyl Ether		C		CH_3	CH_3	<0.1
7	BPA Diacetate	$OOCCH_3$	C	$OOCCH_3$	CH_3	CH_3	0.2
8	Bis(p-hydroxyphenyl)methane	OH	C	OH	H	H	1.8
9	1,2-Bis(4-hydroxyphenyl)-2-propanol	OH	CH_2C	OH	OH	CH_3	0.4
10	2,2'-Bis(4-hydroxyphenyl)-1-propanol	OH	C	OH	CH_3	CH_2OH	1.7
11	Bis[4-(2-hydroxyethoxy)phenyl]sulfone	$O(CH_2)_2OH$	SO_2	$O(CH_2)_2OH$	-	-	<0.1
12	BPX-33		C		CH_3	CH_3	<0.1
13	4,4'-Bis(p-hydroxyphenyl) pentanoic acid	OH	C	OH	CH_3	C_2H_4COOH	<0.1
14	p,p'-dihydroxybenzophenone	OH	C	OH	-	O	<0.1
15	4,4'-dihydroxydiphenyl ether	OH	O	OH	-	-	0.2

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