

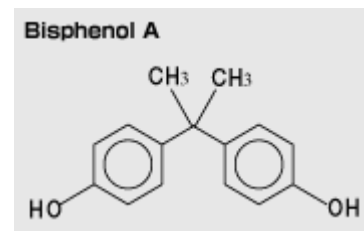


Features

- The quantitative analysis ranges from 0.05µg/L to 10µg/L (ppb), sensitive enough to detect BPA in field samples.
- BPA monoclonal antibody is uniform in quality, generating very little lot-to-lot variation.
- The ELISA measurement is highly reproducible; the coefficient of variation (CV) is generally under 10%.
- The total time for measurement is only 2.5 hours.
- The kit, a 96-well microplate format, enables simultaneous measurement of multiple samples at more reasonable cost.

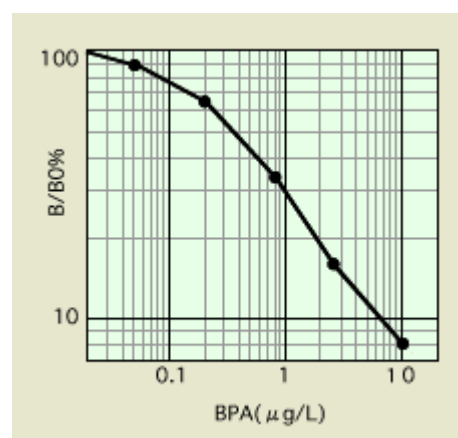
BPA

Bisphenol A (BPA) is the principal raw material for polycarbonate and epoxy resins. BPA is suspected to be one of the endocrine disrupting chemicals, posing concerns over water environment and ecology.



BPA Standard Curve

This test kit has a wide detection range between 0.05µg/L and 10µg/L. With the aid of concentration (SPE), the range can be further lowered. In some samples, dilution will reduce the background effect, a cause of overestimation. Coefficient of variation (CV) is generally under 10% throughout the dynamic range.

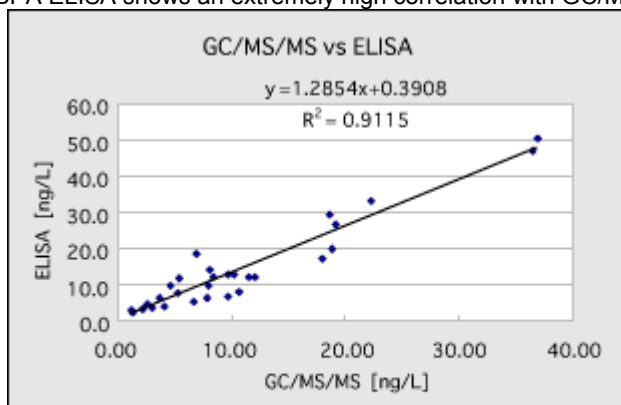


Sample Pretreatment

Samples with lower concentration can be measured with the aid of simple solid phase extraction. Further information regarding pretreatment is available upon request.

Comparison with Traditional Method

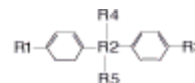
The BPA ELISA shows an extremely high correlation with GC/MS/MS.



Shiraishi et al. (2002), Report of Special Research from the National Institute for Environmental Studies JAPAN (SR-46, p 22)

Cross Reactivity of BPA antibody

Cross reactivity with substances of similar structure to BPA



compound	R1	R2	R3	R4	R5	Cross-Reactivities (%)
Bisphenol A (BPA)	OH	C	OH	CH ₃	CH ₃	100
Bisphenol E (BPE)	OH	C	OH	H	CH ₃	6.0
Bis(p-hydroxyphenyl) methane	OH	C	OH	H	H	1.8
Bisphenol B (BPB)	OH	C	OH	CH ₃	C ₂ H ₅	15.6
2,2'-Bis(4-hydroxyphenyl)-1-propanol	OH	C	OH	CH ₃	CH ₂ OH	1.7
BPA Diacetate	OOCH ₃	C	OOCH ₃	CH ₃	CH ₃	0.2
1,2-Bis(4-hydroxyphenyl)-2-propanol	H	CH ₂ CO	OH	OH	CH ₃	0.4
4,4'-Bis(p-hydroxyphenyl) pentanoic acid	OH	C	OH	CH ₃	C ₂ H ₄ COOH	<0.1
4,4'-dihydroxydiphenyl ether	OH	O	OH	-	-	0.2
p,p'-dihydroxybenzophenone	OH	C	OH	-	O	<0.1
Bisphenol S (BPS)	OH	SO ₂	OH	-	-	0.2
Bis[4-(2-hydroxyethoxy)phenyl]sulfone	O(CH ₂) ₂ OH	SO ₂	O(CH ₂) ₂ OH	-	-	<0.1
BPA Dimethacrylate		C		CH ₃	CH ₃	0.7
BPA Diglycidyl Ether		C		CH ₃	CH ₃	<0.1
BPX-33		C		CH ₃	CH ₃	<0.1

Kit Format

Kit Format	Content	Comments
Microplate	96 wells & reagents	Needs a microplate reader (450nm) For multiple and simultaneous measurement

The assay protocol for biological samples is different from the one for field samples. Please refer to a suitable user's guide and follow the instructions properly.

