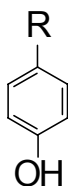


Alkylphenol (AP) ELISA kit

Alkylphenols (APs) are chemical compounds used primarily to manufacture alkylphenol ethoxylates (APEs), which are used as cleaning agents or surfactants. APs like octylphenol (n=8) and nonylphenol (n=9), as well as nonylphenol carboxylic acids (NPnECs), are generated by microbial decomposition of APEs and are known to have estrogenic activity.

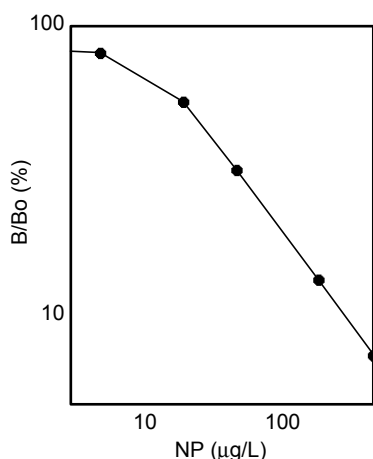
Chemical Structure



R: C₉H₁₉ Nonylphenol (NP)
R: C₈H₁₇ Octylphenol (OP)

The Alkylphenol (AP) ELISA kit* specifically detects APs, APEs and NPnEC and does not cross-react with other surfactants or compounds with similar structure.

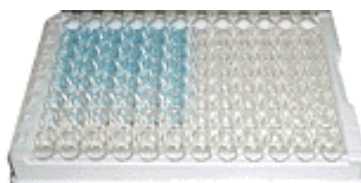
The analysis is based on a competitive reaction where enzyme-labelled standard AP competes with free AP in the sample for binding to a specific monoclonal antibody immobilised to the surface of the microtiter plate. The amount of labelled AP bound to the plate is determined by addition of a non-coloured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



The Alkylphenol (AP) ELISA kit is suitable for applications such as analyses of waste and river water, textiles, detergent formulas and optimization of washing processes.

The assay is highly sensitive, simple and rapid to perform. The standard curve working range is 5-500 µg/L. A simple solid phase extraction protocol is available for samples with very low concentrations of AP.

The kit is available microplate (96 wells) format.



*) *The Alkylphenol (AP) ELISA kit is licensed from Tokiwa Chemical Industries Co. Ltd.*

www.biosense.com

Biosense Laboratories AS, Thormøhlensgt. 55, N-5008 Bergen, Norway
Phone: +47 55543966, Fax: +47 55543771, e-mail: biosense@biosense.com

AP ELISA KIT



Cross-reactivity pattern

<i>Compound</i>	<i>Reactivity (%)</i>
Nonylphenol	100
Octylphenol	187
NPE (Nonylphenol ethoxylate)	
NP10EO (average EO chain length = 10)	100
NP7.5EO (average EO chain length = 7.5)	112
NP5EO (average EO chain length = 5)	140
NP2EO (average EO chain length = 2)	175
NP1EO (nonylphenol mono ethoxylate)	127
Sodium dodecyl sulfate	16
Alkylether sulfate	31
OPE (Octylphenol ethoxylate)	
OP10EO (average EO chain length = 10)	156
Nonylphenol Carboxylic acid (NPnEC)	
NPnEC (n=2)	423
NPnEC (n=3)	423
Anionic surfactants	
Linear Alkylbenzene Sulfonates (LAS)	1.6
Sodium Dodecyl Sulfate (SDS)	1.0
Alkylether Sulfate (AES)	< 0.2
Sodium Laurate (SOAP)	0.3

www.biosense.com

Biosense Laboratories AS, Thormøhlensgt. 55, N-5008 Bergen, Norway
 Phone: +47 55543966, Fax: +47 55543771, e-mail: biosense@biosense.com