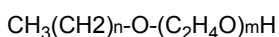


Alkyl Ethoxylate (AE) ELISA kit

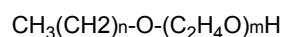
The nonionic surface active agents **Alkyl ethoxylates (AEs)** are mainly used as residential detergents. Production of AEs has increased every year and in 1999 the total production was 140,000 tons, corresponding to 30% of nonionic surfactant production.

Chemical structure



n=8-15, m=5-13

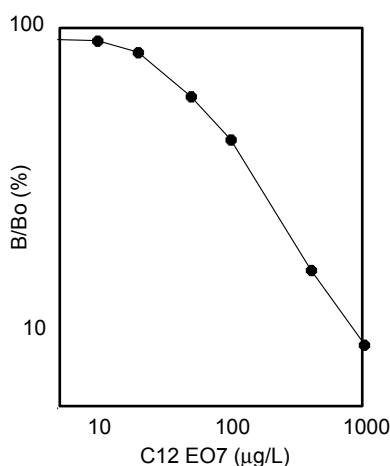
Chemical structure of AE standard



n=11, m=7

The Alkyl Ethoxylate (AE) EIA kit* specifically detects AEs with alkyl chain length C10-C12 and does not cross-react with other surfactants, except weakly with some anionic surfactants with sulfate.

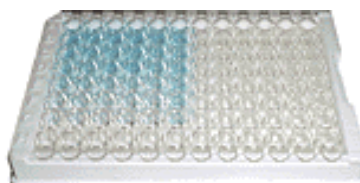
The analysis is based on a competitive reaction where enzyme-labelled standard AE competes with free AE in the sample for binding to a specific monoclonal antibody immobilised to the surface of the microtiter plate. The amount of labelled AE bound to the plate is determined by addition of a non-coloured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



The Alkyl Ethoxylate (AE) 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 20-1000 µg/L. A simple solid phase extraction protocol is available for samples with very low concentrations of AE.

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



**) The Alkyl Ethoxylate (AE) EIA kit is licensed from Tokiwa Chemical Industries Co., Ltd.*

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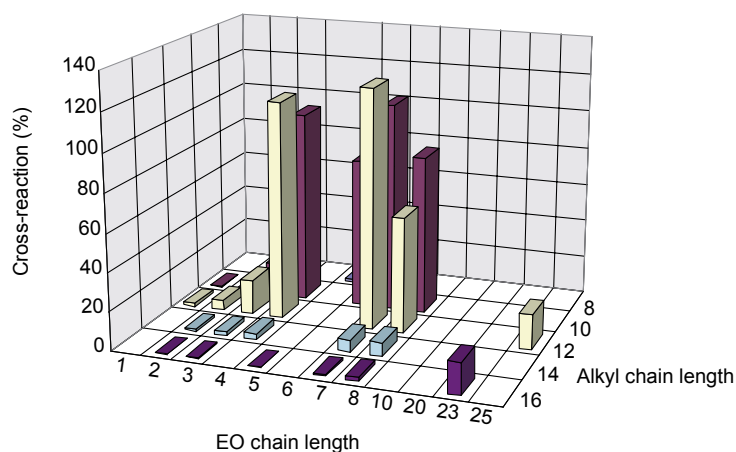
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非イオン界面活性剤 AE ELISA KIT



Cross-reactivity pattern

Compound	Reactivity (%)
Nonionic surfactants	
AE (C12EO7)	100
Nonylphenol ethoxylate (NP10EO) (average EO chain length = 7.5)	<1
Polyethylene glycol (PEG) (average EO chain length = 2)	<1
Tween-20 (average EO chain length = 2, -COOH)	3
Anionic surfactants	
Linear alkylbenzene sulfonate (LAS)	<1
Sodium laurate	10
Sodium dodecyl sulfate	16
Alkylether sulfate	31
Cationic surfactants	
Hexadecyltrimethyl ammonium chloride	<1



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