

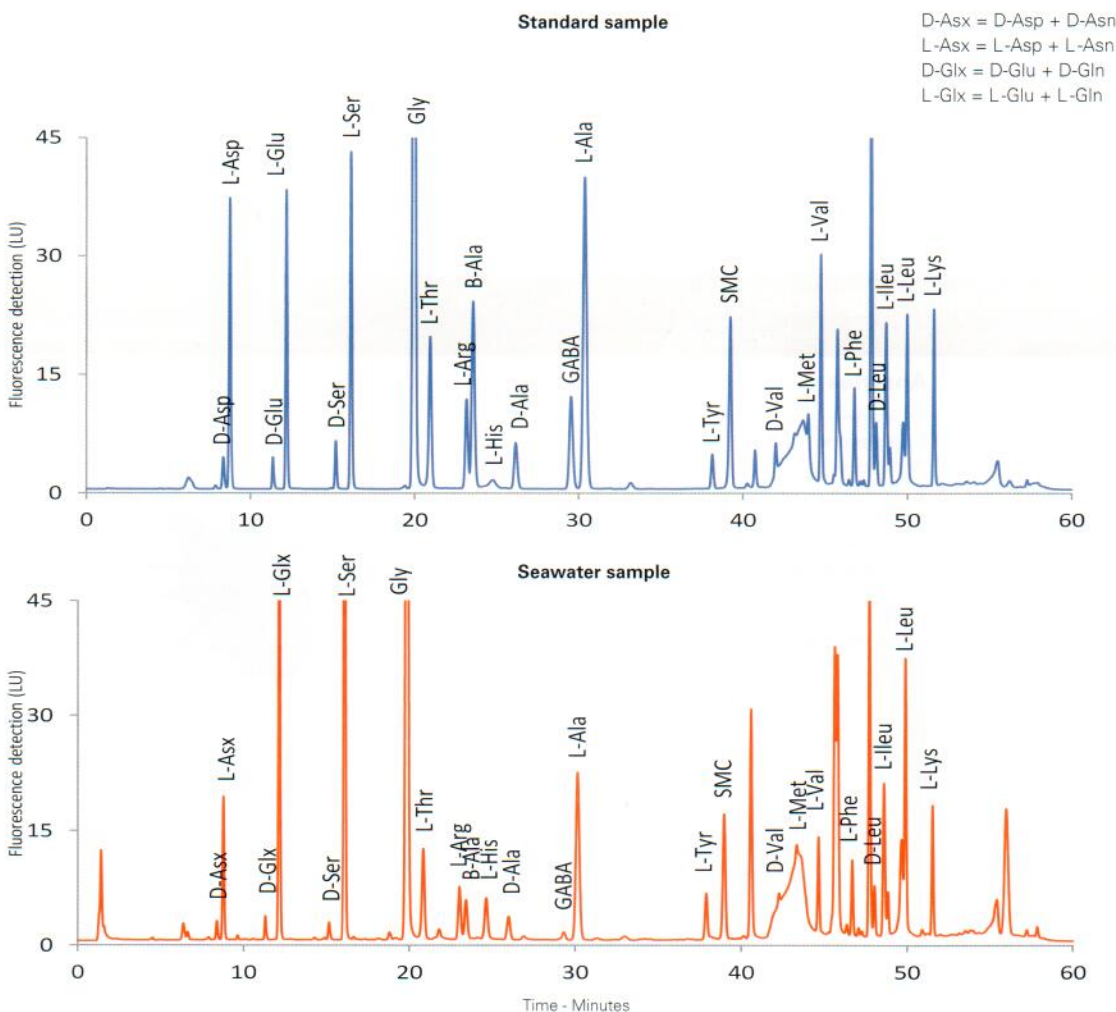
This method enables the quantification of free, dissolved combined, particulate and total amino acid enantiomers from seawater. After hydrolysis, hydrolysates are evaporated, dissolved in borate buffer (pH 10) and centrifuged to remove flocculates. Samples are derivatised with OPA/IBDC (N-isobutyryl-L-D-cysteine) and SMC (S-methyl-L-L-cysteine) added as internal standard. Enantiomer elution order can be reversed by using IBLC (N-isobutyryl-L-L-cysteine)

**Conditions**

**Column:** ACE UltraCore 5 SuperC18  
**Dimensions:** 250 x 3.0 mm  
**Part Number:** CORE-5A-2503U  
**Mobile Phase:** A: 95% 40 mM KH<sub>2</sub>PO<sub>4</sub> pH 6.15 in H<sub>2</sub>O + MeOH/MeCN (93:7 v/v)  
 B: 62% MeOH/MeCN (93:7 v/v) + 38% A  
**Gradient:**

Time (mins)	%B
0.0	0
13.0	27
33.0	36
38.0	58
54.0	92
55.0	100
57.5	0
60.0	0

**Flow Rate:** 0.7 mL/min  
**Temperature:** 45 °C  
**Detection:** Fluorescence, λ<sub>ex</sub> 330 nm λ<sub>em</sub> 450 nm



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