

Technical Data Sheet



EASI-EXTRACT® VITAMIN B12

Art. No. P80 / P80B

1. Kit Contents

10 or 50 wide format immunoaffinity columns for use with HPLC or LC-MS/MS.

2. Specifications

Specificity	Cyanocobalamin (Used to measure total vitamin B12)	
LOD*	Cyanocobalamin	5 ng/ml
Recoveries for Spiked Solutions	RBR QC Specification: Cyanocobalamin	85 - 110 %
Intra-Assay CV	<10 %	
Inter-Assay CV	<10 %	
Storage Conditions	2 - 8 °C (or at 21 - 25 °C)	
Shelf Life	18 Months (or 12 Months)	

* LOD determined by RBR and is dependent on method, HPLC conditions and HPLC equipment used.

3. Method Information

Buffer	Sodium Acetate Buffer
Enzymes	Pepsin, α -amylase
Additional Requirements	1 % Sodium or Potassium Cyanide Solution
Clean-Up Time	2 hours prior to detection by HPLC or LC-MS/MS
Wash Solution	Water
Elution Solution	100 % Methanol
Injection Volume	100 μ l
HPLC System	UV
HPLC Pump	Isocratic
Analytical Column	ACE AQ-C18 3 μ m, 150 mm x 3 mm
Derivatisation	N/A

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4. Recovery Data Using Recommended Methods

Sample	Vitamin B12 Claim	Number of Analyses	Vitamin B12 Concentration Recovered
Vitamin B12 Tablets	2,000 µg/0.849 g	6	1,990 µg/0.849 g
Energy Drink	0.1 µg/100 ml	6	0.107 µg/100 ml
Milk Based Infant Feed	1.25 µg/100 g	6	1.47 µg/100 g
Protein Bar	0.94 µg/100 g	6	1.71 µg/100 g
Protein Shake	5.26 µg/100 g	6	5.42 µg/100 g
Whole Egg	1.5 µg/100 g	3	1.38 µg/100 g
Yoghurt	3.5 µg/100 g	6	3.08 µg/100 g
Animal Feed	2 µg/100 g	6	1.9 µg/100 g
Energy Bars	0.6 µg/100 g	3	1.79 µg/100 g
Premix	2,200 - 2,800 µg/100 g	3	2,616 µg/100 g

Methods for the analysis of the above commodities are available on request. Various posters and publications are available providing additional validation data. Please contact your local R-Biopharm distributor for further information.

5. Example Chromatogram (Spiked Solution at 150 ng)

