

Technical Datasheet

Analysis Name: Vitamins B₁, B₂, B₆ & PP by UHPLC-MS/MS, Biotin by UHPLC-MS/MS

Method Number: LI-00.610

Scope of Application: Infant formula, healthcare products, nutritional bars, culinary products, cereals, cocoa beverages, gummy-based vitamins, and Vitamin Premixes (Biotin determination only).

Description: The method consists of:
Acid hydrolysis in hydrochloric acid (100°C, 35 min)
pH adjustment (except for cocoa containing samples), filtration
Addition of internal standard, dilution
Analysis by UHPLC-MS/MS (using positive electrospray ionization)
Quantification using peak area ratio "Vitamin/IS"

Sample Weight Required: 50 g

Analytical Platform: UPLC – LC/MS/MS

Special information: Provide Certificate of Analysis (COA) or estimated levels for premixes – Biotin testing only.

Analyte Reported	Alias	Unit of Measure	LOQ powders, nutrition bars, culinary	LOQ Concentrates, adult nutritionals, enterals	LOQ RTF liquids, baby foods and fruit/vegetable purees	Reproducibility
Vitamin B ₁ as Thiamine HCl	Thiamine hydrochloride	mg/100 g	0.13	0.038	0.025	12%
Vitamin B ₁ as Thiamine base	Thiamine base	mg/100 g	0.1	0.03	0.02	12%
Vitamin B ₂ (Riboflavin)	Riboflavin	mg/100 g	0.1	0.03	0.02	20%
Vitamin B ₃ (Niacin)	Niacin as the sum of Nicotinic Acid and Nicotinamide	mg/100 g	0.5	0.18	0.12	15%



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Vitamin B ₆ as Pyridoxine base	Pyridoxine base	mg/100 g	0.1	0.03	0.02	15%
Biotin		µg/100 g	6.4	2.4	1.6	15%