

Do you have the right method to analyze water soluble vitamins in food?

Water soluble vitamins are a great challenge to detect in foodstuff. Different concentration levels and the extraction from various food matrices need different analytical methods and tools for proper results. The following information might help you to identify your analytical tool?

Average vitamin concentration in food (µg/100 g)

	Apple	Orange	Wheat	Bread	Wheat flour	Yeast	Chicken egg	Peanut	Cow milk	Tomato	Meat	Fish
												
B1	35	79	455	86	60	1400	N/A	900	37	57	90	55
B2	32	42	94	60	30	2300	408	155	180	35	160	46
B3	300	300	5100	850	700	17000	83	15000	90	530	4900	2300
B5	100	240	1200	690	210	3500	1600	2900	350	310	330	256
B6	103	104	269	17	180	684	77	440	39	100	N/A	200
B7	4.5	2.3	6	2.9	1.5	33	25	34	3.5	4	N/A	2.2
B9	7.5	29	87	22	10	716	67	169	6.7	22	N/A	8
B12	N/A	N/A	N/A	N/A	N/A	N/A	1.9	N/A	0.42	N/A	N/A	1.2
C	12000	45000	0	N/A	N/A	0	0	0	1700	19000	N/A	2000

Available methods for water soluble vitamins



ELISA

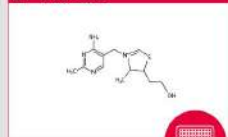


Microbiological test

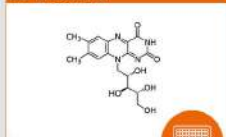


IAC columns prior HPLC analysis

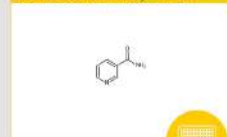
B1 Thiamine



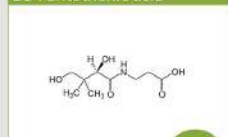
B2 Riboflavin



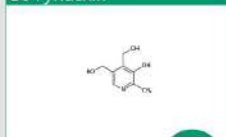
B3 Nicotinamide, Niacin



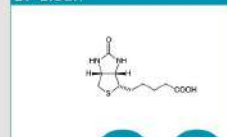
B5 Pantothenic acid



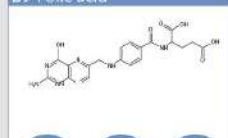
B6 Pyridoxin



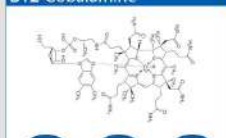
B7 Biotin



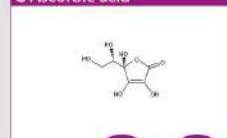
B9 Folic acid



B12 Cobalamine



C Ascorbic acid



Enzymatic test

Tools to conduct your vitamin detection



ELISA

- Antibody based assay
- Fast results
- Simple read out and handling



Microbiological test

- Approved method
- All vitamin parameters analyzable
- Simple read out and handling



IACs columns prior HPLC analysis

- Antibody based columns
- Concentration of vitamins
- Reduction of food matrix background