GOLD STANDARD DIAGNOSTICS

Determine Vitamin Content with Rapid Testing

Vitamins are essential nutrients for the growth, development, and maintenance of cells, tissues, and organs. There are 13 essential vitamins for the body, classified as either water-soluble or fat-soluble.

These nutrients are typically obtained through the consumption of food or dietary supplements, which are subject to vitamin testing in order to meet specific labeling requirements.

Food manufacturers can voluntarily fortify their products with vitamins and minerals, in conformity with local regulation. Some countries even introduced mandatory fortification standards, requiring the addition of folic acid to ie. wheat flour used for making bread.

Vitamin analysis

Vitamin analysis determines the presence and quantity of vitamins in various food and beverages products. Rapid testing methods provide reliable results with a significantly shorter analysis time than traditional laboratory testing.

Gold Standard Diagnostics offers ELISA kits and immunoaffinity columns for the detection and purification of the following water-soluble vitamins:

- Biotin (Vitamin H or Vitamin B7)
- Folic acid (Vitamin B9)
- Vitamin B12

Vitamin ELISA Kits

The ELISA test kits are based on the principle of the enzyme linked immunosorbent assay. The assays determine the vitamin content quantitatively in supplemented food in a significantly faster way (2.5 to 4 hours) than a conventional microbiological assay (24 to 48 hours).

Versatile Technology

- Quick and sensitive method (low limits of detection)
- Quantitative results
- Simple test format

Matrices

- Multivitamin tablets and capsules
- Multivitamin jams and juices
- Orange juice
- Corn flakes
- Milk and Dry milk instant formula
- Isotonic powder (for Biotin only)

SENSI*Spec* ELISA Vitamin Kits

Article no.	Description	No. of tests
HU0030075	SENSI*Spec* Vitamin B12	96
HU0030076	SENSI*Spec* Biotin (Vitamin B7 or Vitamin H)	96
HU0030077	SENSI*Spec* Folic Acid	96

Vitamin Immunoaffinity Columns

IAC columns are offered in a 3 mL format designed for application in various analytical techniques, including HPLC, GC-MS, LC-MS/MS and ELISA. They are used for the purification and enrichment of vitamins from different matrices. The immunoaffinity purification process typically consists of three steps: binding, washing and elution.

Sample extracts are applied to the IAC column and depending on the analyte, binding and washing steps are performed in PBS or similar buffers. Subsequently, the isolated analyte is eluted with methanol or acetonitrile allowing for a direct injection into the HPLC system.

Key Benefits of IAC Columns

- Excellent flow behaviour
- Extremely robust
- Easy enrichment guaranteed
- Highly specific purification with monoclonal antibodies
- Wide range of application for various matrices
- Multi-analyte IACs for LC-MS/MS application

SENSI*Column* Vitamin IAC

Article no.	Description	No. of columns
EFSA3175	SENSI*Column* IAC Biotin Size 3 ml*	50
BTCA3185	SENSI*Column* IAC Vitamin B12 Size 3 ml	50
BTFS3195	SENSI*Column* IAC Folic Acid Size 3 ml	50
FITC-SA-Kon	*FITC-streptavidin-conjugate (25 vials, 1mg)	25 vials

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