

# iCheck Carotene

## Product Information

iCheck **Carotene** is a portable photometer for the quantitative determination of total carotenoids in foods and biological fluids.



### HOW DOES IT WORK?

iCheck consists of 2 parts: a ready-to-use reagent vial and a device. The sample is injected into the reagent vial where carotenoids are extracted. The vial is inserted into the device that measures concentration of carotenoids in the vial.



1. Injection



2. Reaction



3. Measurement

### PRODUCT DETAILS



iCheck device

iCheck **Carotene** measures quantitatively the colour reaction in the reagent vials and displays the total carotenoids content in mg/L. iCheck devices come in a portable case with all necessary accessories.



Reagent vial


iCheck **reagent vials** contain a patented mixture of reagents. They come in a box (**Test Kit**) sufficient for 100 analyses. The reagent's shelf-life is 12 months at room temperature.

### BENEFITS

- **Speed:** result in less than 10 minutes
- **Economy:** cost is only 10% of conventional lab. methods
- **Easy implementation:** only 1 day training required
- **Scalability:** no set up calibration required

### OUR SERVICES

**Free-of-charge customer tech support:**

- Online demos and trainings (i.e. Skype)
- Instant support via WhatsApp:  +49 1573 1111234
- Support with analysis, calculations, interpretation of standards, sampling protocols, technical consultations about the micronutrients

**On-site Training**

**Feasibility testing for new matrices**

iChecks are manufactured in Germany, used in over 80 countries and validated against standard laboratory methods. Learn more at [www.bioanalyt.com/products](http://www.bioanalyt.com/products)

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For orders, technical assistance or any other inquiries contact BioAnalyt at:  
contact@bioanalyt.com • +(49) 33 28 35 15 000 • [www.bioanalyt.com](http://www.bioanalyt.com)

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## Technical Data

### Quality assurance

iCheck and iCheck Carotene reagent vials are produced according to quality management system (DIN EN ISO 9001:2015) certified by TÜV Nord in Germany.

TECHNICAL DATA	
Sample	
Analyte:	Total carotenoids
Sample:	Food: Premix, roots (i.e. cassava), beverages, eggs, salmon; Biological fluids: colostrum, cattle whole blood & serum
Sample preparation:	For solid or highly concentrated samples: dilution in distilled or bottled water
Sample volume per analysis:	0.4 mL (400 µL)
Concentration range:	>0.15 ppm (mg/kg), samples above 15.0 ppm must be diluted in water
Device	
Analytical method:	Photometric determination of total carotenoid concentration using absorption at 450 and 525nm.
Units displayed:	mg/L
Linear range:	0.15 - 15.00 mg/L
Calibration:	Factory set (standards included for control)
Time per analysis:	< 10 min
Environment:	20 -30°C, no direct sunlight
Accuracy at 95% confidence interval at 25°C:	±5-20% (depends on the sample type and concentration)
Method comparison:	High-performance liquid chromatography (HPLC)
User training:	1 day training
Use:	Laboratory and field
Data output:	Sample #, Batch #, Result, Date, Time (in transferred data)
Connectivity and data:	Results are stored in the device and transferred to a PC via USB
Power source:	NiMH rechargeable batteries included; AA 1.2 or 1.5V
Warranty:	2 years
Device weight:	0.45 kg
Device dimensions:	11 x 4 x 20 cm (W x H x L)
Test Kit	
Content:	100 reagent vials; 100 syringes - 1.0 mL; 100 needles - 1.6mm x 25mm.
Chemical composition:	n-Hexan and alcohols
Volume per reagent vial:	2.0 mL
Shelf life:	12 months at 20 -30°C, no direct sunlight, upright
Dimension of test kit:	26 x 14.5 x 16.5 cm
Disposal instructions:	Hazardous waste
Optional equipment:	Manual centrifuge, 50 mL falcons, weighing dishes, reference samples

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