

# iCheck Fluoro

## Product Information

iCheck Fluoro is a portable fluorometer for the quantitative determination of the vitamin A content in food and biological fluids within minutes.



### 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 vitamin A is extracted. The vial is inserted into the device that measures concentration of vitamin A in the vial.



1. Injection



2. Reaction



3. Measurement

### PRODUCT DETAILS



iCheck device

iCheck Fluoro is a portable fluorometer. The device measures vitamin A quantitatively and displays the results in  $\mu\text{g RE/L}$ . 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. Zoom)
- Instant support via WhatsApp:  +49 3328 35150034
- 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)

### measure for life

For orders, technical assistance or any other inquiries contact BioAnalyt at: [contact@bioanalyt.com](mailto: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 Fluoro reagent vials are produced according to quality management system (DIN EN ISO 9001:2015) certified by TUV Nord in Germany.

TECHNICAL DATA	
Sample	
Analyte:	Vitamin A (retinol) as retinyl palmitate, retinyl acetate and other esters
Sample:	Food: premix, liquid milk, milk powder, flour, sugar, bouillon powder; biological fluids: breast milk, cattle whole blood and serum
Sample preparation:	For solid samples: dilution and homogenization in distilled or bottled water
Sample volume per analysis:	0.5 mL (500 µL)
Concentration range:	>0.05 ppm (mg/kg), samples above 3.0 ppm must be diluted in water
Device	
Analytical method:	Fluorimetric determination of retinol concentration using ultraviolet (UV) excitation
Units displayed:	µg RE/L, RE – retinol equivalents, µg - microgramms
Linear range:	50 – 3000 µg RE/L
Calibration:	Factory set (standards included for control)
Time per analysis:	< 10 min
Environment:	20 –30°C, no direct sunlight
Accuracy:	Coefficient of variation is 3 - 15%; extended measurement uncertainty at 95% confidence at 25 °C is 10 - 30% depending on sample type.
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