iCheck Chroma 3
Product Information

iCheck Chroma 3 is a portable photometer for the quantitative determination of vitamin A in refined edible oils.

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 a reaction with vitamin A takes place. 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 Chroma 3 measures vitamin A quantitatively and displays the results in mg RE/kg. iCheck devices come in a portable case with all necessary accessories.

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 5 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

measure for life

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

BioAnalyt

iCheck Chroma 3

Technical Data

Quality assurance

iCheck and iCheck Chroma 3 reagent vials are produced according to quality management system (DIN EN ISO 9001:2015) certified by TÜV Nord in Germany.

TECHNICAL DATA	
Sample	
Analyte:	Vitamin A (retinol) as retinyl palmitate
Sample:	Refined edible oils: palm, soy, cottonseed, sunflower, corn, peanut, rapeseed, coconut, rice bran
Sample preparation:	If the oil is solid, warm it up to a maximum of 50°C to make it liquid
Sample volume per analysis:	0.1 mL (100 µL)
Concentration range:	>3.0 ppm (mg/kg), samples above 30.0 ppm must be diluted in refined unfortified oil
Device	
Analytical method:	Photometric determination of retinol concentration using colorimetric Carr-Price reaction combined with compensation for matrix effect
Units displayed:	mg RE/kg and IU/g; RE – retinol equivalents, IU – international units
Linear range:	3.00 – 30.00 mg RE/kg (10.00 - 100.00 IU/g)
Calibration:	Factory set (standards included for control)
Time per analysis:	< 2 min
Environment:	20 –30°C, no direct sunlight
Accuracy:	Max coefficient of variation is 13%; extended measurement uncertainty at 95% confidence at 25°C is 30%.
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 - 0.8mm x 16mm.
Chemical composition:	Chloroform and antimony trichloride
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:	50 mL falcons, reference samples