

Non-Esterified Fatty Acids | ASC-ACOD Method

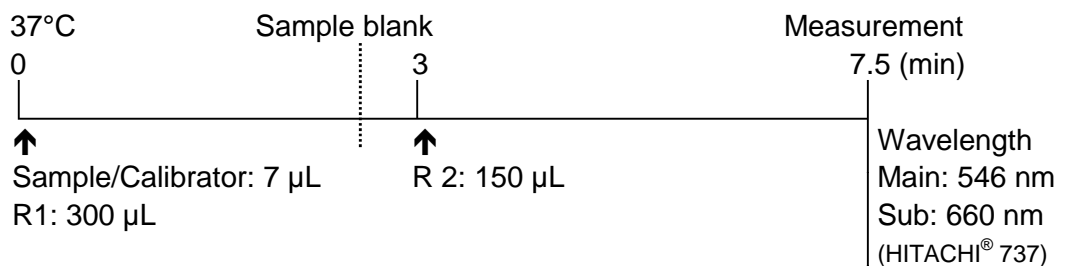
For the quantitative determination of non-esterified (or free) fatty acids in serum

- High linearity
- Excellent correlation to WAKO NEFA C Kit
- No reagent preparation required
- Accurate, precise, simple and fast
- Can be used on chemical analyzers

Principle

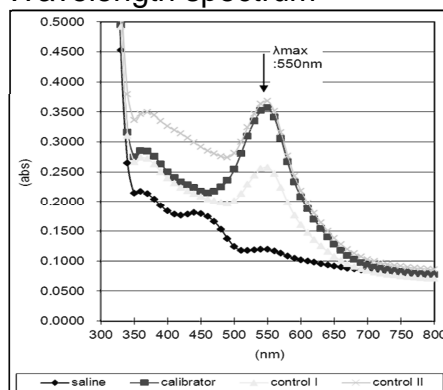
Non-esterified fatty acid (NEFA) in the sample is converted to Acyl-CoA, AMP and pyrophosphoric acid (PPI) by the action of Acyl-CoA synthetase (ACS), under coexistence with coenzyme A (CoA) and adenosine 5-triphosphate disodium salt (ATP). Obtained Acyl-CoA is oxidized and yields 2,3-trans-Enoyl-CoA and hydrogen peroxide by the action of Acyl-CoA oxidase (ACOD). In the presence of peroxidase (POD), the hydrogen peroxide formed yields a blue purple pigment by quantitative oxidation condensation with 3-Methyl-N-Ethyl-N-(β -Hydroxyethyl)-Aniline (MEHA) and 4-aminoantipyrine (4-AA). NEFA concentration is obtained by measuring absorbance of the blue purple color.

Procedure



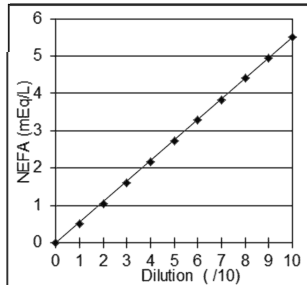
Reactions

Wavelength spectrum

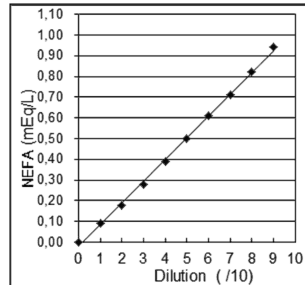


Range 0.01 - 4 mmol/L

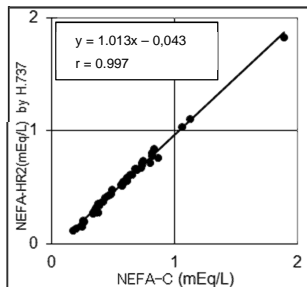
Linearity Linearity at high range:
4 mmol/L



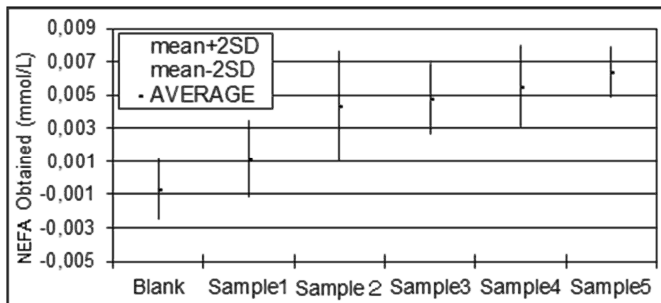
Linearity at low range:



Correlation



Sensitivity 0.005 mmol/L



Interference Ascorbic acid and hemolysis do not have significant effects on the assay. Citrate, oxalate, EDTA and sodium fluoride do not have significant influences on the assay when they are used in their usual amounts.

CE Applications

AU400	Hitachi 902	Hitachi 912
AU600	Hitachi 904	Hitachi 7600
AU640	Hitachi 911	Modular

Ordering

Code No.	Product	Content
434-91795	NEFA-HR(2) R1 Set	R1: 4 x 50 mL R1a: 4 x for 50 mL
436-91995	NEFA-HR(2) R2 Set	R2: 4 x 25 mL R2a: 4 x for 25 mL
4270-77000	NEFA Standard	CAL: 2 x 10 mL



Mediq Suomi Oy
Luomanportti 3, PL 115
02201 Espoo, puh. 020 112 1510
asiakaspalvelu@mediq.com, www.mediq.fi

Rev. 1113D2WP