:: CLINICAL CHEMISTRY

# NEFA FS

## Non-esterified fatty acids

FIRST TIME LIQUID-STABLE

- :: Innovative Trinder method
- :: Excellent stability up to expiry date, even after opening
- :: No risk due to hazardous substances
- :: Linearity up to 3 mmol/L
- :: No interferences by clinical samples

DiaSys
Diagnostic Systems

CHOOSING QUALITY.

## Clinical Interpretation

Non-esterified fatty acids (NEFA) are physiologically important sources of energy. They serve as substrate for cell membrane structures and as precursor for many intracellular signal molecules such as prostaglandins. NEFA in blood mainly originate from lipolysis in adipose tissue, which is affected by diet and fluctuations of insulin level. In pathological states like insulin resistance / diabetes type 2, obesity and malignant diseases concentration in plasma increases. NEFA is considered to be an important link between obesity and diabetes, and therefore, essential in the management of metabolic syndrome. New studies show that increased concentration of NEFA is a reliable indicator for increasing insulin resistance.

## Principle

### Innovative Trinder method

Non-esterified fatty acids + Coenzym A + ATP $\xleftrightarrow{ACS}$ Acyl-CoA + AMP + PPi

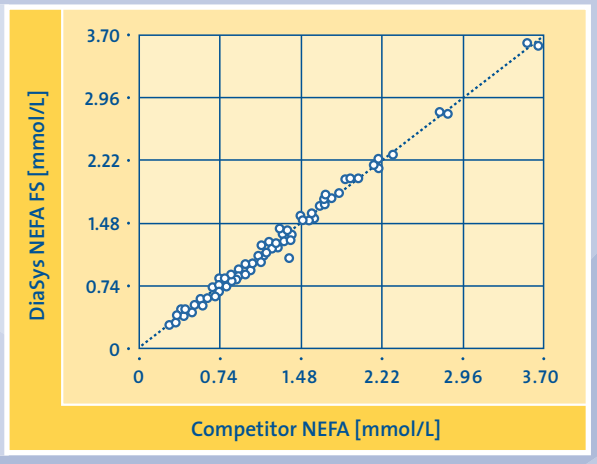
Acyl-CoA + $O_2$ $\xleftrightarrow{ACOD}$ 2,3-trans-Enoyl-CoA + $H_2O_2$

2 $H_2O_2$ + Trinder $\xleftrightarrow{POD}$ Dye + 4 $H_2O$

## Performance

NEFA FS is based on an enzymatic endpoint method and is the only liquid stable, ready-to-use reagent in the market. The reagent shows high stability and enables a precise measurement up to 3 mmol/L. The test is characterized by a good calibration stability of 2 weeks and an excellent on-board stability of 4 weeks. Lack of hazardous ingredients ensure a safe handling and protect environment.

## Method Comparison




**DiaSys NEFA FS vs. competitor**

n = 114

Passing/Bablock Regression:

y = 0.984 x + 0.045 mmol/L

r = 0.996

**NEFA FS**

Product code 1 5781

Detailed order information about kits for multipurpose use or dedicated kits for fully automated systems like DiaSys respons®, BioMajesty JCA-BM6010/C, Hitachi 911, Hitachi 917, ADVIA systems, Olympus AU systems, Prestige 24i and Vitalab Selectra can be found on our website www.diasys-diagnostics.com or in our current product catalogue.

CE

DiaSys Diagnostic Systems

**DiaSys Diagnostic Systems GmbH**

Alte Strasse 9 :: 65558 Holzheim :: Germany

**Phone** +49 (0) 64 32 /91 46-0 :: **Fax** +49 (0) 64 32 /91 46-32

mail@diasys.de :: www.diasys-diagnostics.com

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