



## CITRATE

DETERMINATION OF CITRATE IN SERUM, PLASMA, URINE, SEMINAL FLUID AND FOODSTUFFS

### Enzymatic method

Suitable for all analyzers – 100 tests

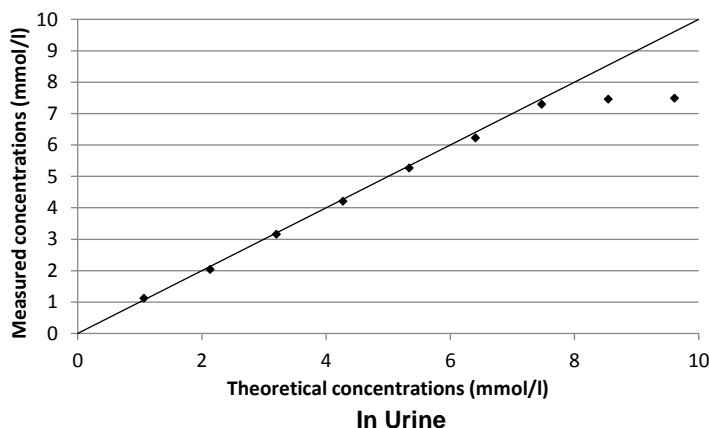
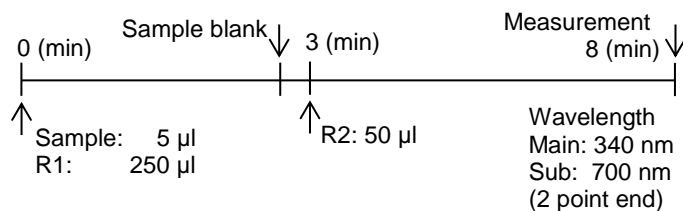
Product insert with instructions for automated and manual procedures

Stability > 6 years after production

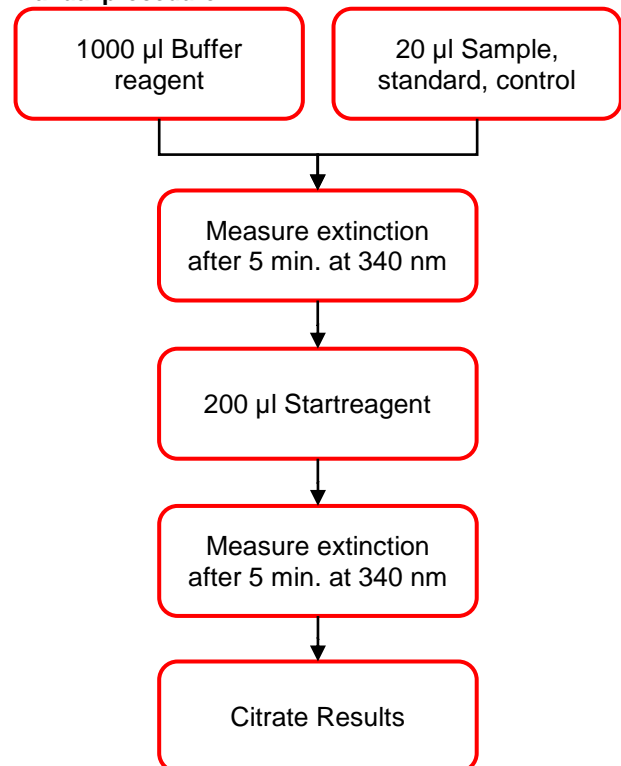
Also available: Oxalate Reagent Set

Now Citrate/Oxalate controls available

#### Settings for automatic analyzers



#### Manual procedure



| Product name                           | Product no. | Quantity      |
|--|-------------|---------------|
| Citrate Reagent Set                    | 2881        | 25 -100 tests |
| Citrate / Oxalate Control Normal Level | 3084        | 10 x 2 ml     |
| Citrate / Oxalate Control High Level   | 3085        | 10 x 2 ml     |





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- Enzymatic Method
- Suitable for all analyzers – 100 tests
- Product insert with instructions for automated and manual procedures
- Stability > 6 years after production
- Citrate / Oxalate Controls available
- Wavelength 340, 334, 365 nm



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|--|-------------|----------------|
| Citrate Reagent Set                    | 2881        | 25 – 100 tests |
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## SUMMARY

### PRINCIPLE

Citrate  $\xrightarrow{\text{Citrate lyase}}$  Oxaloacetate + Pyruvate + CO<sub>2</sub> + Acetate

Oxaloacetate + NADH + H<sup>+</sup>  $\xrightarrow{\text{Malate dehydrogenase}}$  Malate + NAD<sup>+</sup>

Pyruvate + NADH + H<sup>+</sup>  $\xrightarrow{\text{Lactate dehydrogenase}}$  Lactate + NAD<sup>+</sup>

The amount of NADH oxidized to NAD<sup>+</sup> in those reactions is stoichiometric with the concentration of citrate.

### SAMPLE MATERIAL

Urine, serum or heparinised plasma, seminal fluid (dilute 1+19) and foodstuffs

### LINEARITY

Urine: Up to 8 mmol/l (1537 mg/l)  
Serum/plasma: Up to 250 µmol/l (48 mg/l)  
Seminal fluid: Up to 80 mmol/l (15.4 g/l)

### EXPECTED VALUES

Urine: 1.5 – 4.7 mmol/24 hours (288 – 903 mg/24 hours)  
Serum/plasma: 45 - 130 µmol/l (8.6 – 25.0 mg/l)  
Seminal fluid: 21 - 36 mmol/l (4.0 – 6.9 g/l)

### QUALITY CONTROL

| Products                               | Product no. | Quantity  |
|--|-------------|-----------|
| Citrate / Oxalate Control Normal Level | 3084        | 10 x 2 ml |
| Citrate / Oxalate Control High Level   | 3085        | 10 x 2 ml |

### QUANTITY OF DETERMINATIONS

- Manual : 25 tests
- Automated : 100 tests

### NOTES

1. For in vitro diagnostic use only.
2. For professional use only.
3. Always contact INstruChemie for the complete product insert and latest edition.
4. Printed in the Netherlands, October 2016, version 4.0