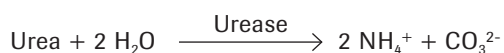


Urea

Test principle: Kinetic UV test



Kinetic test with urease and glutamate dehydrogenase. Urea is hydrolyzed by urease to form ammonium and carbonate. In the second reaction, α -ketoglutarate reacts with ammonium in the presence of glutamate dehydrogenase (GIDH) and the coenzyme NADH to produce L-glutamate. In this reaction, two moles of NADH are oxidized to NAD for each mole of urea hydrolyzed.

The rate of decrease in the NADH concentration is directly proportional to the urea concentration in the sample. It is determined by measuring the absorbance at 340 nm.

Proposed reagent composition

Reagent 1

Composition	Concentration	Catalog Number
Buffer (CAPSO, pH 9.65)	5 mmol/l	
NADH	>0.23 mmol/l	10 004 642 103
Preservative, such as Sodium azide		

Reagent 2

Composition	Concentration	Catalog Number
Buffer (BICINE, pH 7.6)	1000 mmol/l	11 525 778 103
α -Ketoglutarate, di-Na	>8.3 mmol/l	10 040 584 103
Urease	>6 kU/l	11 759 132 103
GIDH	>0.9 kU/l	10 190 462 103 or 11 434 993 103
Preservative, stabilizer, such as Sodium azide		
Albumin	0.5 %	10 738 328 103

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Your Roche Custom Biotech Customer Service

Europe, Middle East, Africa, Latin America

Phone +49 621 759 8580

Fax +49 621 759 8610

mannheim.custombiotech@roche.com

Japan Phone +81 3 5443 5285

Fax +81 3 5443 7934

japan.custombiotech@roche.com

Asia Pacific Phone +65 6371 6638

Fax +65 6371 6601

apac.custombiotech@roche.com

United States

Phone +1 800 428 5433, ext. 14649 (toll-free)

Fax +1 317 521 4065

custombiotech.ussales@roche.com

Canada Phone +1 450 686 7050

Fax +1 450 686 7012

custombiotech.can@roche.com

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Roche Diagnostics GmbH

Sandhofer Straße 116

68305 Mannheim

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