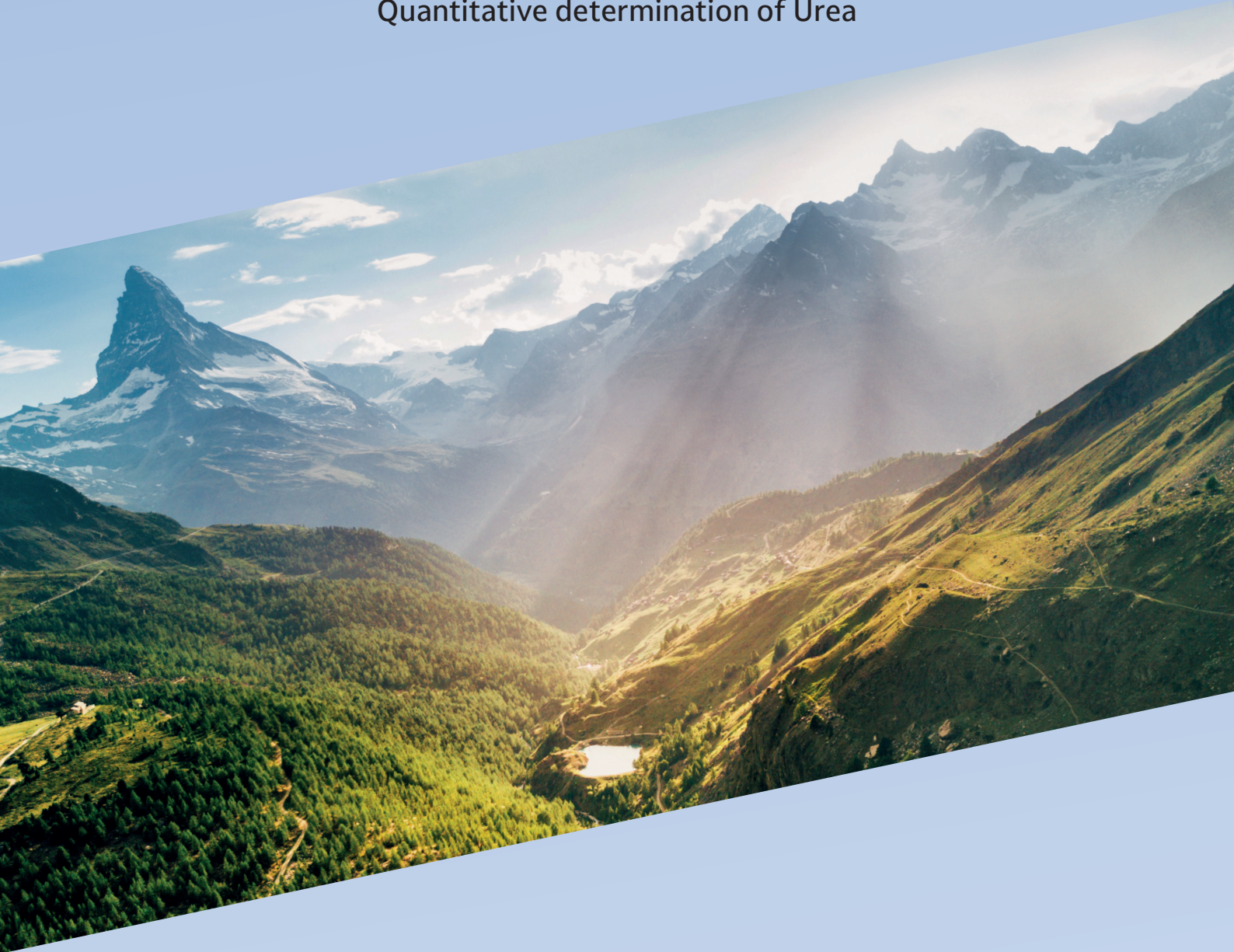


Urea UV

Quantitative determination of Urea

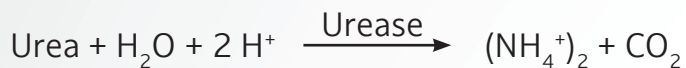


Featured products:

- Urease [URH-201](#)
- Glutamate Dehydrogenase (NAD-dependent) [GTD-211](#)
- NADH [BNH-208A](#)
- α -Ketoglutaric acid disodium salt, dihydrate [CHL-510C](#)
- Glucose-6-Phosphate Disodium Salt [GPS-15C](#)

UREA UV FEATURED PRODUCTS

Principle



Urease from Jack Bean

Ref: [URH-201](#)

Michaelis constant	1.05×10 ⁻² M (Urea)
Stability	Stable at -20°C for at least 12 months
Optimum pH	6.0
Optimum temperature	60 °C
pH Stability	pH 5.5 - 8.5 (30 °C, 17hr)
Thermal stability	Below 50 °C, (pH 8.0, 60min)

Glutamate Dehydrogenase (NAD-dependent) from Microorganism

Ref: [GTD-211](#)

Michaelis constant	9.21×10 ⁻³ M (NH ₃), 4.80×10 ⁻³ M (α-Ketoglutarate) 5.89×10 ⁻⁴ M (NAD ⁺) 7.8×10 ⁻⁵ M (L-Glutamate) 1.29×10 ⁻⁴ M (NADH)
Stability	Stable at -20°C for at least 12 months
Optimum pH	7.5 - 8.0 (α-KG → L-Glu), 9.0 (L-Glu → α-KG)
Optimum temperature	55°C (α-KG → L-Glu), 50°C (L-Glu → α-KG)
pH Stability	5.0 - 10.0 (25°C, 20hr)
Thermal stability	Below 50°C (pH 8.3, 10min)

NADH (β -Nicotinamide-adenine dinucleotide, reduced disodium salt)

Ref: [BNH-208A](#)

Stability	At least 12 months at 2-8°C
pH	7 - 10
Storage	2 - 8°C. Protect from moisture and light
$A_{340/280}$	0.42 - 0.44

α -Ketoglutaric acid disodium salt, dihydrate

Ref: [AKE-05C](#)

Stability	At least 2 years at room temperature
Assay	> 98 %
Storage	Room temperature
Transmittance	> 85 % (10%, H ₂ O)

Glucose-6-Phosphate Disodium Salt

Ref: [GPS-15C](#)

Stability	At least 2 years at room temperature
Storage	Room temperature

UREA UV SORACHIM REAGENT RESULTS

Reagents

R1 (Buffer)	Tris pH 7,8 α -Ketoglutarate
R2 (Enzymes)	Urease Glutamate dehydrogenase (GTD) NADH
UREA CAL	Urea aqueous primary standard

Linearity limit: 530 mg/dL

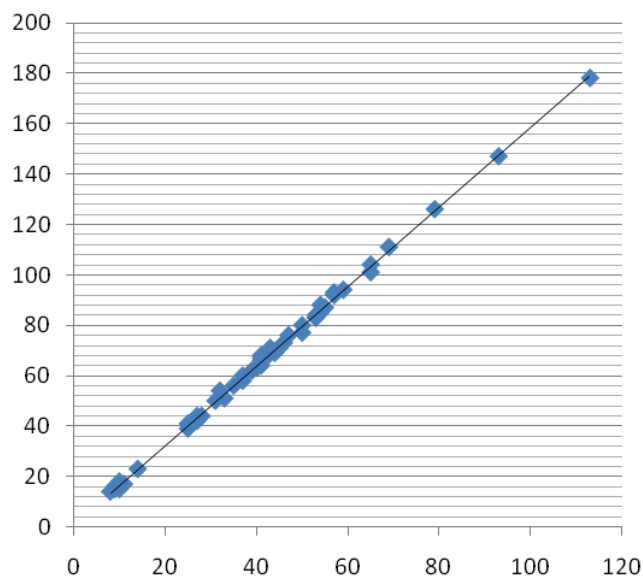
Measuring range: From detection limit of 1,241 mg/dL to linearity limit of 530 mg/dL.

	Intra-assay (n=20)		Inter-assay (n=20)	
Mean (mg/dL)	40,7	130	40,5	128
SD	0,88	1,02	1,19	2,07
CV (%)	2,16	0,78	2,94	1,61

Accuracy

Correlation coefficient (r^2): 0,998.

Regression equation: $y = 1,5759x + 1,1577$.



STABILITY DATA

Normal Control Serum (NC): Target value 42,1 mg/dL, Range 35,8-48,4 mg/dL
Pathological Control Serum (PC): Target value 126 mg/dL, Range 107-145 mg/dL

Reagent stability at 37°C

RESULTS DAY 0 (mg/dL)	NC: 40 PC: 126	NC: 40 PC: 125	NC: 40 PC: 126
RESULTS DAY 16 (mg/dL)	NC: 40 PC: 127	NC: 40 PC: 126	NC: 41 PC: 127
RESULTS DAY 30 (mg/dL)	NC: 42 PC: 126	NC: 43 PC: 124	NC: 44 PC: 133

Working reagent stability at 2-8°C

DAY 0 (mg/dL)	NC: 40 PC: 129	NC: 41 PC: 127	NC: 40 PC: 128
DAY 16 (mg/dL)	NC: 40 PC: 126	NC: 41 PC: 126	NC: 40 PC: 125
DAY 30 (mg/dL)	NC: 39 PC: 123	NC: 38 PC: 122	NC: 39 PC: 122

Working reagent stability at room temperature

DAY 0 (mg/dL)	NC: 40 PC: 129	NC: 41 PC: 127	NC: 40 PC: 128
DAY 15 (mg/dL)	NC: 48 PC: 135	NC: 46 PC: 132	NC: 47 PC: 134

Real time stability at 2-8°C

CONTROL VALUES	Initial Evaluation		Final Evaluation	
	Target (mg/dL)	Range	Target (mg/dL)	Range
Normal Control Serum (NC)	43,5	37-50	42	35,7-48,3
Pathological Control Serum (PC)	155	132-178	128	109-147
Calibrator (CAL)	99	84,2-113,9	101	85,9-116,2

DAY 0 (mg/dL)	NC: 43,7 PC: 150 CAL: 102	NC: 40,8 PC: 161,8 CAL: 100	NC: 44.4 PC: 151 CAL: 99
24 months (mg/dL)	NC: 46 PC: 130 CAL: 101	NC: 40 PC: 123 CAL: 108	NC: 37 PC: 133 CAL: 101

Stable for 18 months



ADDITIONAL PRODUCTS



→ TRIS base [TRI-187C](#)

TRIS base - Tris(hydroxymethyl)-aminomethane

$C_4H_{11}NO_3$ - Mw : 121.14

White powder - Purity : > 99 %

→ Bovine Serum Albumin [ALB-30C](#)

Bovine Serum Albumin Fraction V

Purity : > 98 % - Mw : 66 kDa

Greyish flakes

→ EDTA [EDT-101C](#)

EDTA, disodium salt dihydrate

$C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$ - Mw : 372.24

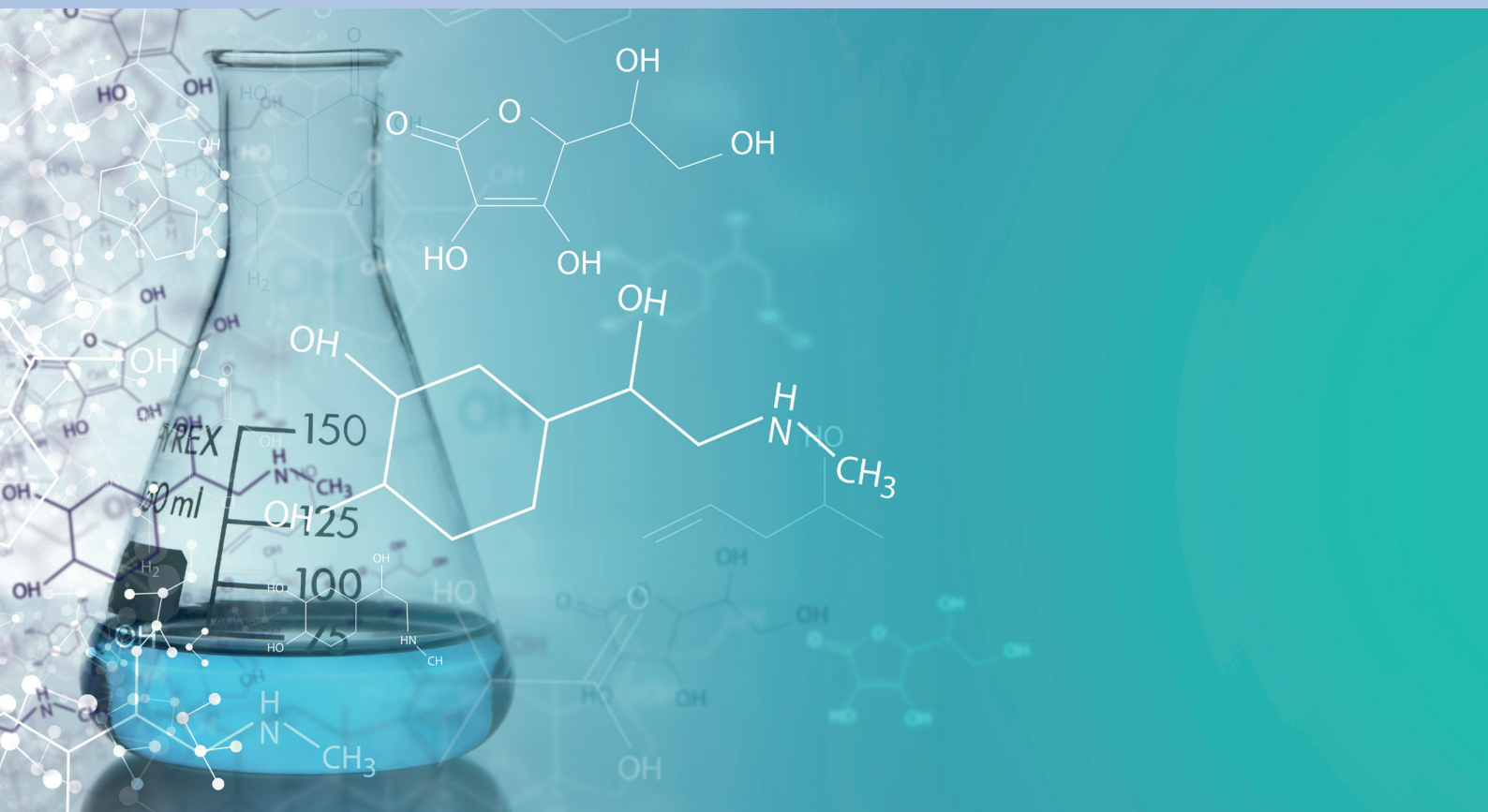
White powder - Purity : > 99 %

→ Sodium azide [SAZ-167C](#)

Sodium azide

NaN_3 - Mw : 65.02

White powder - Purity : > 99 %



Your partner for Diagnostic Reagents



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