

ALANINE AMINOTRANSFERASE (ALT/GPT) IFCC

Quantitative determination of ALT/GPT activity

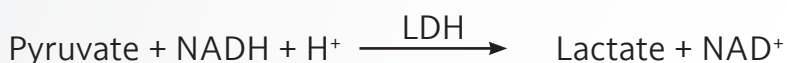
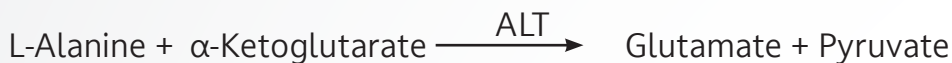


Featured products:

- D-Lactate Dehydrogenase from microorganism [LCD-221](#)
- NADH (β -Nicotinamide-adenine dinucleotide, reduced disodium salt) [BNH-208A](#)
- α -Ketoglutaric acid disodium salt, dihydrate [AKE-05C](#)

ALANINE AMINOTRANSFERASE (ALT/GPT) IFCC FEATURED PRODUCTS

Principle



D-Lactate Dehydrogenase from microorganism

Ref: [LCD-221](#)

Michaelis constant	6.4×10^{-4} M (pyruvate, pH 7.0)
Stability	Stable at -20°C for at least 12 months
Optimum pH	5.0–7.0
Optimum temperature	$30\text{--}37^{\circ}\text{C}$
pH Stability	pH 5.0–9.0 (25°C , 48hr)
Thermal stability	Below 45°C (pH 7.0, 15min)

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

Ref: [BNH-208A](#)

Stability	At least 12 months at $2\text{--}8^{\circ}\text{C}$
pH	7 - 10
Storage	$2 - 8^{\circ}\text{C}$. 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)

ALANINE AMINOTRANSFERASE (ALT/GPT) IFCC SORACHIM REAGENT RESULTS

Reagents

R 1	TRIS pH 7,8
Buffer	Lactate dehydrogenase (LDH)
	L-Alanine
R 2	NADH
Substrate	α -Ketoglutarate

Linearity limit: 400 U/L

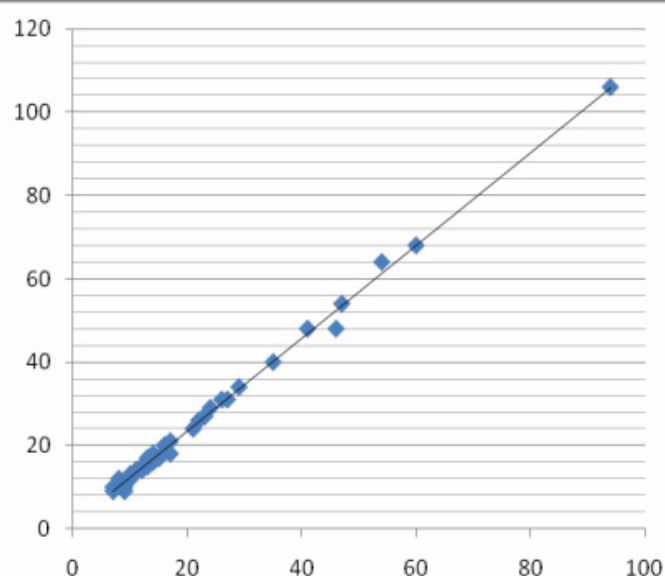
Measuring range: From detection limit of 0,000 U/L to linearity limit of 400 U/L.

	Intra-assay (n=20)		Inter-assay (n=20)	
Mean (U/L)	42,0	116	41,1	115
SD	0,47	0,42	0,76	1,61
CV (%)	1,11	0,36	1,85	1,40

Accuracy

Correlation coefficient (r)²: 0,99597.

Regression equation: $y = 1,1209x + 1,390$.



STABILITY DATA

Normal Control Serum (NC): Target value 44 U/L, Range 36 – 52 U/L

Pathological Control Serum (PC): Target value 122 U/L, Range 100 – 144 U/L

Reagent stability at 37°C

RESULTS DAY 0 (U/L)	NC: 42 PC: 114	NC: 41 PC: 113	NC: 41 PC: 114
RESULTS DAY 14 (U/L)	NC: 41 PC: 116	NC: 42 PC: 116	NC: 42 PC: 117
RESULTS DAY 30 (U/L)	NC: 41 PC: 116	NC: 41 PC: 114	NC: 41 PC: 116

Working reagent stability at 2-8°C

DAY 0 (U/L)	NC: 44 PC: 110	NC: 42 PC: 109	NC: 42 PC: 107
DAY 7 (U/L)	NC: 44 PC: 106	NC: 41 PC: 105	NC: 43 PC: 110
DAY 14 (U/L)	NC: 46 PC: 111	NC: 45 PC: 110	NC: 46 PC: 112
DAY 21 (U/L)	NC: 41 PC: 111	NC: 42 PC: 111	NC: 44 PC: 111

Working reagent stability at room temperature

DAY 0 (U/L)	NC: 38 PC: 106	NC: 43 PC: 110	NC: 45 PC: 110
DAY 3 (U/L)	NC: 42 PC: 104	NC: 40 PC: 111	NC: 42 PC: 112

Stable for 18 months

ADDITIONAL PRODUCTS



→ L-Alanine [LAL-29C](#)

L-Alanine free acid

$C_3H_7NO_2$ - Mw : 89.09

White powder - Purity : > 99 %

→ TRIS Base (Tris(hydroxymethyl)-aminomethane) [TRI-187C](#)

TRIS base - Tris(hydroxymethyl)-aminomethane

$C_4H_{11}NO_3$ - Mw : 121.14

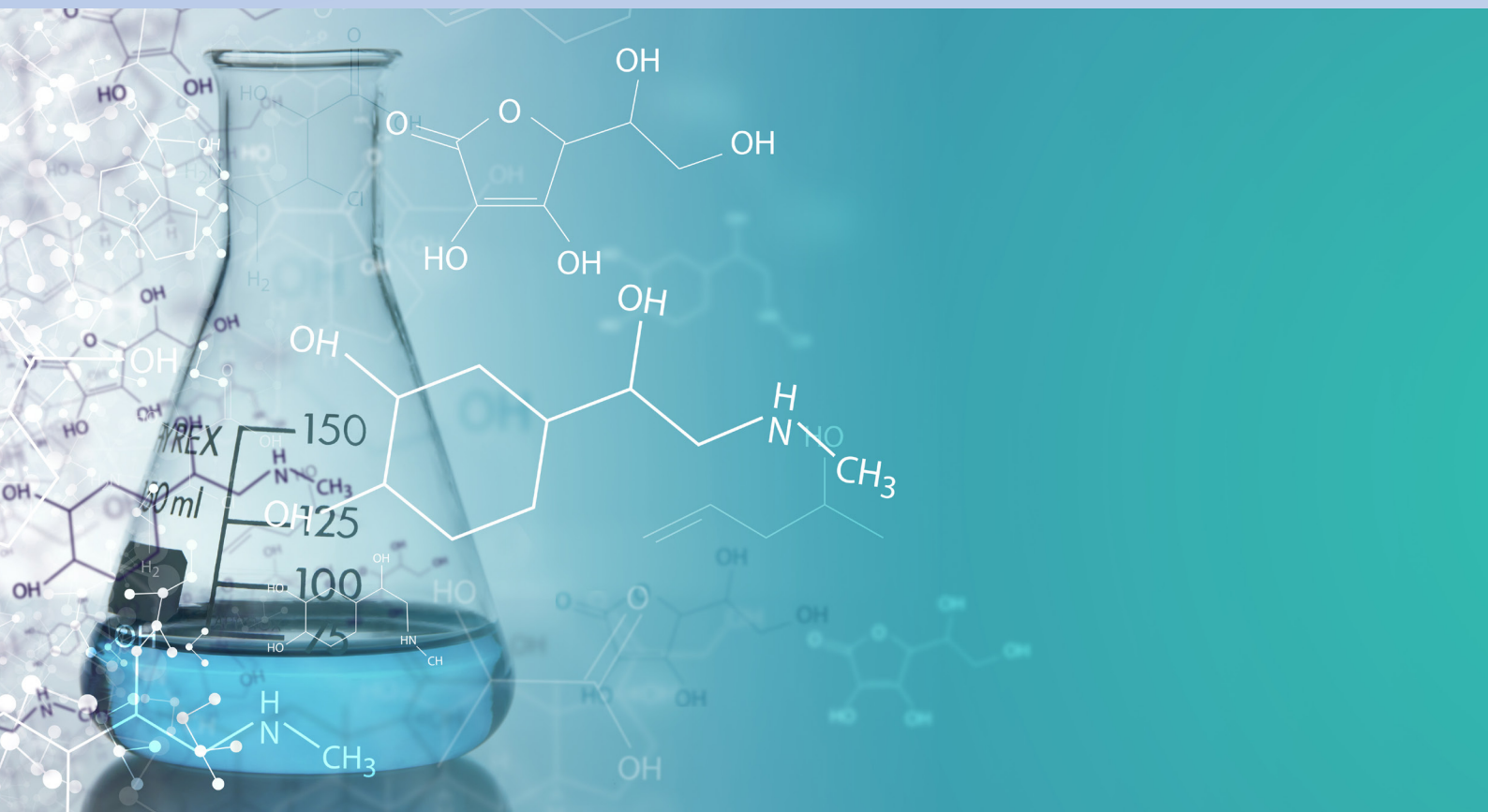
White powder - Purity : > 99 %

→ Bovine Serum Albumin [ALB-30C](#)

Bovine Serum Albumin Fraction V

Purity : > 98 % - Mw : 66 kDa

Greyish flakes



Your partner for Diagnostic Reagents



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