

Alanine Aminotransferase (ALT)

Test principle: UV test



Method according to the International Federation of Clinical Chemistry (IFCC), without pyridoxal-5'-phosphate. ALT catalyzes the reaction between L-alanine and α -ketoglutarate. The pyruvate formed is reduced by NADH in a reaction catalyzed by lactate dehydrogenase (LDH) to form L-lactate and NAD⁺.

The rate of the NADH oxidation is directly proportional to the catalytic ALT activity. It is determined by measuring the decrease in absorbance at 340 nm.

Proposed reagent composition

approximately 3+1 formulation

Reagent 1

Composition	Concentration	Catalog Number
Buffer (TRIS, pH 7.3)	230 mmol/l	10 153 265 001
L-Alanine	1100 mmol/l	10 136 921 103
Lactate dehydrogenase (LDH)	>1.2 kU/l	10 679 666 103 or 12 235 650 103
Detergent, preservative, stabilizer, such as Sodium azide		
Triton X-100	0.01 %	10 743 119 103
Albumin	0.25 %	10 738 328 103

Reagent 2

Composition	Concentration	Catalog Number
α -Ketoglutarate, di-Na	95 mmol/l	10 040 584 103
NADH	>1.7 mmol/l	10 004 642 103
Preservative, such as Sodium azide		

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