

Background: Aminoacyl-tRNA synthetases are a group of 20 enzymes to catalyze the reaction of amino acids with t-RNA. Jo-1 antigen resides on the enzyme histidyl-tRNA synthetases and is located in the cytoplasma.

Jo-1 antibodies account for 75% of all antibodies directed against synthetases and Jo-1 antibodies occur in 20%-35% of patients with inflammatory myositis, dermatomyositis, polymyositis, in overlap syndromes, and cancer associated myositis, as well as in fibrosing alveolitis.

Sampling: 1 mL serum

Reference Interval: Negative: < 20 U/mL

Kalium Serum or Plasma see Potassium, Serum, Plasma

Kalium, Urine see Potassium, Urine

Knee Punctate see Synovial Fluid Analysis

K-L

Lactic Acid, Whole Blood, Plasma or CSF

Related Information: Ammonia, Plasma
Ethanol, Blood, Serum or Urine
Ibuprofen, Serum
Salicylate, Serum or Plasma

Synonyms: Blood Lactate, Lactate

Background: Derived from pyruvate in glycolysis, levels rise sharply during exercises. Lowest values occur during fasting and upper values during postprandial state.

Increased in lactic acidosis caused by carbon monoxide intoxication, anemia, methemoglobinemia, respiratory failure, shock hypotension.

Increased in drug mediated lactic acidosis by ethanol, methanol, ethylene glycol, cyanide, nitroprusside, salicylate, nalidixic acid, catecholamines. Increased during therapy with biguanides (phenformin), particularly in patients >60 years.

Increased in inborn errors of metabolism such as diabetes mellitus; mitochondrial myopathy; glycogen storage diseases Type I,II,III,V,VIII; fructose1-6-biphosphatase deficiency; deficiency of pyruvate carboxylation.

Increased in liver and renal failure, infections, malignancies.

Useful as a prognostic parameter for mortality and admission to the emergency unit: Patients with values >36 mg/dL need emergency care.