



Anti-Tryptophanyl-tRNA synthetase autoantibodies

Indications

► Academic issues, at the moment there exist no medical indications

Antigen

Tryptophanyl-tRNA synthetase (EC 6.1.1.2; M, 53,1 kDa; chromosom14q32.31) belongs to the family of aminoacyl-tRNA synthetases, which catalyze the ester bond of amino acids to their specific transport RNA (tRNA). The latter ones are engaged in the transport of amino acids for their assembly into the nascent polypeptide chain within the ribosomes.

Autoantibodies

It should be pointed out, that autoantibodies anti-tryptophanyl-tRNA synthetase do not belong to the myositis associated antibodies (MSA). Their diagnostic value in dermatomyositis/polymyositis and antisynthetase syndrome are at the moment unknown.

Prevalence

Autoantibodies against tryptophanyl-tRNA synthetase have been reported in categories of persons listed in table 1.

Table 1 Autoantibodies against tryptophanyl-tRNA synthetase in healthy and diseased persons.

persons	Prevalence [%]
Healthy persons	5,1
Pregnant women	3,7
Myocardial infarction	12,5
Nephritis	20,5
Carcinoma of cervix	43,6
Carcinoma of esophagus	37,5

Literature

Paley EL, Alexandrova N, Smelansky L: Tryptophanyl-tRNA synthetase as a human autoantigen. Immunol Lett (1995); 48(3): 201 - 207 (PMID: [8867852](#)).