



Anti-Lysyl-tRNA synthetase autoantibodies

Indications

► Academic issues, at the moment there do not exist medical indications.

See also

► [Anti-Isoleucyl-tRNA synthetase autoantibodies](#)

Prevalence

Aminoacyl-tRNA synthetases can assemble with each other and with other proteins forming macromolecular complexes. In mammalian cells nine of these tRNA synthetases (arginyl-, asparaginyl-, glutaminy-, α -glutaminy-, isoleucyl-, leucyl-, lysyl-, methionyl- and prolyl-tRNA synthetase) associate with three protein factors (AIMP/p18, AIMP2/p38, and AIMP1/p43) to form a large multi-aminoacyl-tRNA synthetase complex (Quevillon und Mirande 1996; Ibba and Soll 2000; Kim et al. 2013). In two of 11 patients harboring precipitating antibodies against isoleucyl-tRNA synthetase also antibodies against lysyl-tRNA synthetase (EC 6.1.1.6; M_r 68 kDa.; cromosoma 16q23.1) were detected, which were able to inhibit the catalytic activity of the enzyme but did not precipitate the tRNA (Targoff et al. 1993; Gelpí et al. 1996). Up to now there exist no additional references pertaining these antibodies, their solitary existence in patients with idiopathic inflammatory myopathy was not recorded.

Literatur

Gelpí C, Kanterewicz E, Gratacos J, Targoff IN, Rodríguez-Sánchez JL: Coexistence of two antisynthetases in a patient with the antisynthetase syndrome. *Arthritis Rheum* (1996); 39(4): 692 - 697 (PMID: [8630123](#)).

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