Autoantibodies: The mystery revealed

Connective Tissue Diseases

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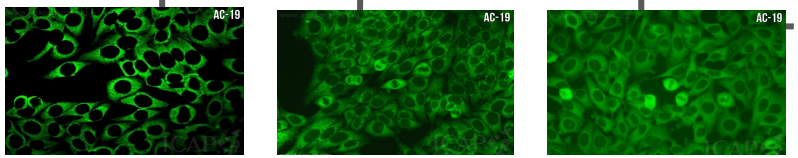
Anti-PL-12 antibodies

- Firstly reported in **1986**
- Name: « Pl » stands for « Preciptin line »

- **Family**: Myositis specific antibodies (MSA), more specifically aminoacyl-transfer-RNA synthetases or antisynthetase syndrome antibodies
- **Target antigen:** alanyl-tRNA synthetase enzyme

Screening technique:
- **Indirect Immunofluorescence (IIF) on HEp-2 cells**: optimal but variability between laboratories
- **ELISA screen** (Jo1, PL7, PL12, EJ and KS)

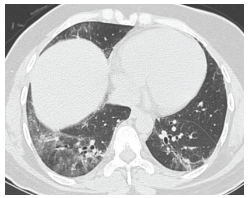
IIF pattern on HEp-2 cells: Fine speckled to homogeneous cytoplasmic fluorescence



Antisynthetase syndrome (ASS):

- One of the ASS specific antibodies, is part of a limited number of classification criteria, but it is not included in the ACR/EULAR 2017 criteria.
- Prevalence: 2 – 5% among antisynthetase specific antibodies

- Association with Interstitial Lung Disease (ILD) in 90%
- Low prevalence of rheumatological symptoms
- Possible absence of muscular involvement
- Association with features that overlap with systemic sclerosis (skin sclerosis, esophageal involvement and pulmonary hypertension)
- **Severe phenotype of ILD => decreased survival**



Confirmation techniques:
- **RNA Immunoprecipitation: gold standard** with high sensitivity and specificity, but laborious
- **Line/Dot blot immunoassay: good** sensitivity but interferences represent a major limit

References