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Anti-PL-7 antibodies

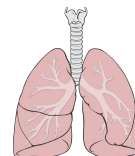
- **Name:** « PL » stands for « Precipitin line »
- **Family:** Among the myositis specific autoantibodies
- **Target antigen:** Threonine-RNA-t-synthetase

Prevalence: found in only 2–5% of idiopathic inflammatory myopathies (IIM) patients

Associated with **antisynthetase syndrome (ASS)**
Among the diagnostic criteria for **ASS** according to **Connors et al** and **Solomon et al** which include the **presence of aminoacyl-tRNA synthetase autoantibodies** with at least one clinical item

Main clinical features:

- **early and severe interstitial lung disease**
- presence of heliotrope rash
- arthritis
- pericardial effusion
- increased morbidity and mortality



screening technique

Indirect immunofluorescence (IIF) on Hep-2 cells
-Not sufficiently sensitive
-Possible interference with other antibodies (anti PL-12 and anti ribosomal P antibodies)

confirmation technique

Immunoprecipitation

- (+) Reference standard method
- (-) Not performed in routine practice

Multispecific Immunoassays (line/dot immunoassays)

- (+) Rapid evaluation of several myositis specific antibodies at the same time
- (-) possible false positive results
- Sensibility 64%, sensitivity 99%

Screening techniques routinely performed:

- **IIF on HEp-2 cells**
- **ELISA screen (Jo1, PL-7, PL-12, EJ and KS)**

IIF Patterns on HEp-2 cells: Cloudy, almost homogeneous cytoplasmic pattern

-Weakly positive results in line blot immunoassays for anti PL-7 Antibodies are more likely false positives than true positives [2]
- Inter-assay variability

-Combining line/dot immunoassays with IIF improves the diagnostic performance
-Careful interpretation with clinico-biological data

