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Firstly described in 1979, in patients with systemic sclerosis (SSc)

- **Family:** antinuclear autoantibody (ANA)
- **Target antigen:** Topoisomerase I, a 70 kDa nuclear basic protein

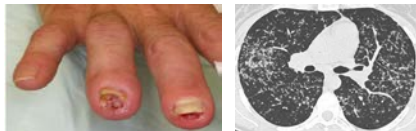
- Highly specific for SSc: up to 40% of patients
- **Negative Predictive Value: 90-100%**
- **Positive Predictive Value: 25 %**
- Present in 4% of patients with systemic lupus erythematosus

Anti-ATA (anti-ScI-70) antibodies

- **Main disease: Systemic sclerosis (SSc)**
- Included in the international 2013 ACR-EULAR classification criteria for SSc; weight = 3 points.

- Mainly detected in **diffuse cutaneous forms (71%)**, tends to be associated with:

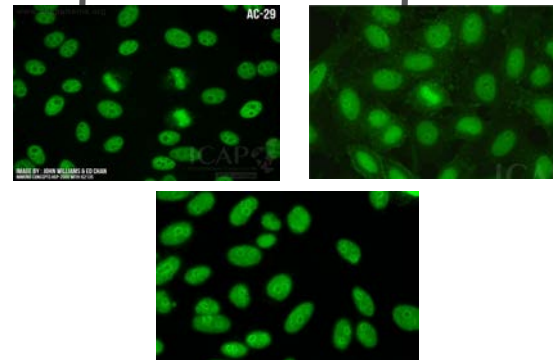
- interstitial lung disease (40%)**
- pulmonary hypertension**
- digital ulcers (60%)**



- Strongly associated with a **severe systemic course**
- **poor prognosis and worse survival rate**
- Associated with a higher risk of cancers along with anti-RNA polymerase III

	Screening	Confirmation		
Technique	Indirect immunofluorescence IIF on HEp-2 cells.	ELISA	Line/dot blot immunoassay	Immunodiffusion
Advantages	detects false positives in specific tests	Quantitative Specificity (99%) and Sensitivity (97%)	Sensitivity 96% Specificity 98%	sensitivity (20%) Specificity (100%) Cost
Limits	Low specificity 54% Lack of sensitivity 85%	Cost	Semi quantitative Cost	Requires longer time

IIF patterns on HEp-2 cells: Speckled +/- nucleolar, +/- homogeneous



ANA negativity does not exclude the presence of anti-ScI-70:

The use of a confirmation technique is required if strong clinical suspicion

