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- **Anti-SSA/Ro** includes two distinct autoantibodies that recognize 60 kDa (Ro60) and 52 kDa (Ro52) antigens.
- Ro52 is an interferon-inducible protein of the tripartite motif family (**TRIM21**), an essential regulator of innate immunity, that acts as a **common target for autoantibodies in systemic autoimmunity**.

Screening technique: Indirect immunofluorescence on HEp-2 cells:
Lack of sensitivity as Ro52 may exhibit low expression levels on HEp-2 cells, and its detection can be easily affected by ethanol fixation. Do not produce a distinctive staining pattern on IIF

Anti-Ro52 is not disease-specific and may be found in a range of systemic autoimmune diseases.


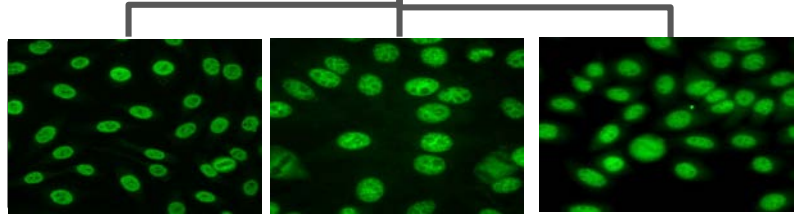
Exclusive anti-Ro52 samples tend to be NEGATIVE in HEp-2 IIF
Associated with anti SSA/Ro60 (89%): Nuclear Fine Speckled
 Fine to discrete speckled staining of interphase nuclei in a uniform distribution. Cells in mitosis show no staining of the condensed chromosomal region.
 Cytoplasmic pattern can also be observed.

Anti-Ro52 antibodies (TRIM 21)

Clinical features in Connective Tissue Diseases

- **Sjogren syndrome:** higher disease activity (ESSDAI), increased incidence of cryoglobulinemia and higher risk of B-cell lymphoma.
- **Antisynthetase syndrome:** increased frequency of interstitial lung disease (ILD) and accelerated lung function decline ⇒ **Potential marker for lung fibrosis.**
- **Dermatomyositis:** high prevalence and severity of ILD and a poor prognosis.
- **Idiopathic ILD patients:** interstitial pneumonia with autoimmune features

Anti-Ro52 may have an important role in detecting the autoimmune phenotype in ILD patients.

Confirmation techniques:
Best sensitivity and specificity: Ro52 Specific ELISA, chemiluminescent immunoassay (CLIA) and laser bead assays (ALBIA).
Line immunoassays

