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- Firstly identified in **2006**
- **Name:** Anti-transcriptional intermediary factor 1- γ antibodies
- **Family:** Myositis-specific autoantibody
- **Target antigen:** E3-ligase, transcriptional factor-1- γ hetero complex 155/140 kDa; the larger tripartite motif (TRIM) family: **TIF1- γ** (TRIM33), **TIF1- α** (TRIM24), and, less commonly, **TIF1- β** (TRIM28)
- Role in DNA repair, transcriptional elongation, differentiation of cells, mitosis and embryonic development.
- It can act as tumor suppressor (Breast cancer), or tumor promotor (Cervical and pancreatic cancer)

Prevalence in: Adult dermatomyositis (DM): 7–31%
Juvenile DM: 22–32%
Connective tissue disease (CTD)-associated myositis: 15%
Juvenile CTD-associated myositis: 33%

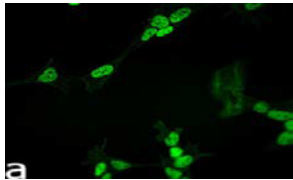
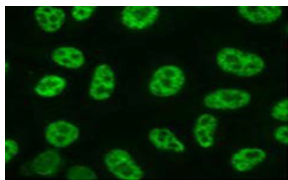
Anti-TIF1- γ antibodies

- **Skin involvement:** Severe hyperkeratotic Gottron papules (82,2%), psoriasiform lesions, 'Red on white' patches, shawl sign rash
- **Muscle involvement:** Moderate, Low CPK levels Dysphagia (18-40%)
- **Muscle histology:** Severe lesions Vasculopathy
- Diffuse interstitial lung disease, Arthritis, Raynaud phenomena: **Infrequent**



Screening technique: Indirect Immunofluorescence on HEp-2 cells.
IIF pattern: Nuclear, fine speckled

Confirmation techniques: ELISA, WB (Immunoblotting)
-Strip test, Immunoprecipitation..
IgG2 autoantibodies in particular were associated with mortality and malignancy in adult.



High risk factor of IIM-associated cancer:

- The presence of anti-TIF1 gamma antibodies is associated with an increased risk of **cancer in adults (27-fold higher)**
- **Cancer-associated DM in adults:** VPN=97%, VPP=42%
- There is no association with cancer in juvenile DM.
- Its presence may be related to the initial diagnosis of cancer or the recurrence/metastasis of a known cancer.
- Most frequently associated cancers are: **Pulmonary cancer, Ovarian and Breast cancer, Digestif tract cancer, Lymphoma and leukemia.**

All patients with anti-tif1- γ antibodies should undergo systematic cancer screening: Basic screening + CT scan of the neck, thorax, abdomen and pelvis + Cervical screening + Mammography + PSA + CA 125 + Pelvic ultrasonography + Faecal occult Blood + Nasoendoscopy.

