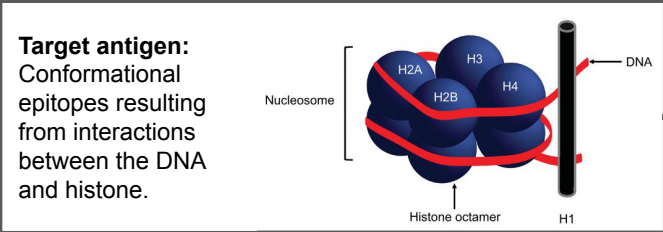


**Yosr BOUSSOUKAYA**  
Faculty of medicine of Monastir

**& Fairouz ZARROUK**  
Faculty of pharmacy of Monastir

Anti-nucleosome antibodies (also referred to as anti-chromatin antibodies) were firstly reported in **1990** in patient with Systemic Lupus Erythematosus (SLE)



**Systemic Lupus Erythematosus**

- Are not part of the diagnostic criteria of the SLE.
- High titers can be useful to the diagnosis of SLE, particularly in patients in whom anti-dsDNA and anti-Sm antibodies are negative (up to 30% of patients).

The simultaneous presence with **anti-dsDNA** and **anti-histone** antibodies is more frequent in **lupus nephritis** than in SLE without renal involvement.

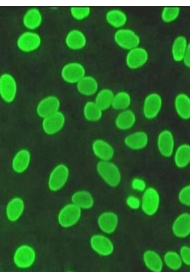
**Anti- nucleosome antibodies**

Triple positivity (anti-DNA, anti-histone and anti-nucleosome) is associated with:

- severe renal damage and course
- lower remission rate
- more flares

**Screening technique**  
Indirect Immunofluorescence (IIF) on HEp-2 cells

**IIF pattern on HEp-2 cells:**  
homogeneous



**Confirmation techniques**

**Enzyme-Linked Immunosorbent Assay (ELISA)**

- Advantages: Automatable, highly sensitive, quantitative estimation, rapid.
- Disadvantages: Lack of specificity, influenced by numerous factors; the nature and quality of the antigen and the efficiency of its adsorption on solid support.

**Line/dot blot immunoassay**

- Advantages: Sensitive, unitary test.
- Disadvantages: Semi-automatable, semi-quantitative estimation

Anti-nucleosome antibodies are **highly accurate early diagnostic markers of SLE** with a **sensitivity of 61%** and **specificity of 94%** and an excellent positive predictive value

**But can also be seen in:**

- drug-induced lupus erythematosus
- mixed connective tissue disease
- systemic sclerosis
- other CTDs

but most often at lower antibody titers.

