

WHITE PAPER

Enhancement of diagnosis linked to rheumatic diseases with anti DFS70 antibodies

Anti-nuclear antibodies (ANAs) have a well-established role in the diagnosis of systemic autoimmune rheumatic disease. Despite all progress in the last years on diagnostic tools, the false positive rate of ANAs in healthy populations and in patients with non-autoimmune diseases may result in unnecessary anxiety with the patient and can also pose an unnecessary burden on healthcare systems. The last years of research have given rise to new diagnostic factors such as autoantibodies against a so-called DFS70. This describes antibodies against the dense fine speckled 70 kDa antigen.

International studies have shown that anti-DFS70 antibody positivity is rare in patients with systemic autoimmune diseases (less than 1%) while anti-DFS70 antibodies are commonly found in the serum of healthy people (2-22%). While a positive test of ANA can be found in sera of patients with systemic autoimmune diseases as well as sera of healthy people, a additional testing for ANA-positive patients for anti-DFS70 can be used to rule out systemic autoimmune diseases, offering also a cost saving potential. Looking into details, positive samples for autoantibodies to DFS70, were identified with either healthy people or patients with interstitial cystitis, a variety of chronic inflammatory conditions, autoimmune thyroiditis, Vogt-Koyanagi-Harada syndrome, atopic dermatitis or cancer.

All these conducted studies lead to the fact that anti-DFS70 antibodies are understood as a valuable markers that helps to rule out a diagnosis of autoimmune diseases such as systemic lupus erythematosus (SLE), systemic sclerosis (SSc), inflammatory idiopathic myopathies (IIM), Sjögren's syndrome (SjS) and mixed connective tissue disease (MCTD). Also long term studies of anti-DFS70 antibodies of positive, healthy individuals confirms this, as this group did not develop systemic autoimmune disease after a period of 4 years.

References

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