Version 06-02/25

User's Manual

Elastase-Ab ELISA Kit

REF **DEIABL335**

Σ **96T**

RUO

This product is for research use only and is not intended for diagnostic use.

For illustrative purposes only. To perform the assay the instructions for use provided with the kit have to be used.

Creative Diagnostics

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PRODUCT INFORMATION

Intended Use

Elastase-Ab ELISA is a solid phase enzyme immunoassay employing native human Elastase for the quantitative and qualitative detection of antibodies against Elastase in human serum.

The assay is a tool in the diagnosis of autoimmune systemic vasculitis.

General Description

Elastase-Ab ELISA is a solid phase enzyme immunoassay employing native human Elastase for the quantitative and qualitative detection of antibodies against Elastase in human serum. The assay is a tool in the diagnosis of autoimmune systemic vasculitis. Elastase is a serine protease with a homology of 54% to proteinase 3, occuring mainly in polymorph-nuclear neutrophilic granulocytes (PMN), in macrophages and endothelial cells. The proteolytic activity of Elastase secreted by neutrophils is responsible for the dismantling of proteoglycans. Furthermore, Elastase participates decisively in tissue destruction connected with emphysemas and rheumatoid arthritis. Antibodies against Elastase belong to the group of anti-neutrophil cytoplasmic antibodies (ANCA) which are directed against cytoplasmic components of neutrophilic granulocytes and monocytes. For the detection of ANCAs indirect immunofluorescence test on ethanol-fixed neutrophils has been the established method so far. It became apparent that some ANCAs create a cytoplasmic fluorescence pattern (thus called cANCA) while others create a perinuclear pattern (the pANCA). As both patterns may cover multiple antigens, immunofluorescence does not suffice for a satisfying differential diagnosis of vasculitis; thus each IFT should be verified with specific ELISA tests. Proteinase 3 (PR3) and Myeloperoxidase (MPO) have been identified as the major cANCA and pANCA antigens, respectively, but other cellular components like Lactoferrin, Cathepsin G and Elastase cause perinuclear staining, too and therefore are included into the group of pANCAs. Detection of ANCAs is a useful laboratory diagnostic test for certain small vessel vasculitides and some non-vasculitic clinical syndromes, such as inflammatory bowel disease (IBD). Antibodies against MPO correlate with idiopathic or vasculitis associated necrotizing crescentic glomerulonephritis. They are found frequently in 70% of patients with microscopic polyangiitis as well as 5-50% of patients with Churg-Strauss syndrome. Autoantibodies to PR3 are a specific serological marker for Wegener's granulomatosis (WG). Autoantibodies against Elastase are generally associated with inflammatory rheumatic disorders, e.g. rheumatoid arthritis and vasculitis.

Storage

2-8°C

Precision

Intra-Assay		
Sample No.	Mean (U/ml)	CV (%)
1	130.0	2.4
2	95.0	3.9
3	63.0	4.1

Inter-Assay		
Sample No.	Mean (U/ml)	CV (%)
1	138.0	2.6
2	101.0	3.4
3	61.0	3.2

Detection Range

0 - 300 U/mL, cut-off 15 U/mL

Sensitivity

1.0 U/ml.