

Autoantibodies associated with Systemic Lupus Erythematosus (SLE)

Systemic Lupus Erythematosus (SLE) is a chronic, inflammatory autoimmune disease of the connective tissue, which can affect virtually any part of the human body. In line with the complexity of SLE specific symptoms, more than 100 autoantibodies have been associated with this disease. Although several autoantibodies are considered to be specific for SLE, autoantibodies are known that are also detected in the serum of patients diagnosed with other diseases. Intriguingly, several studies found at least one SLE associated autoantibody in up to 88% of the patients and up to 9.4 years prior to the onset of diagnostic symptoms. In summary, this highlights the necessity of parameters suitable for the high throughput screening of sera from presumed SLE patients.

DIARECT produces several autoantigens against which SLE associated autoantibodies, including those preceding symptoms, have been identified.

These antigens include Ro/SS-A (60 kDa), U1-snRNP 68/70 kDa and double stranded DNA (dsDNA), which are produced in the *E. coli* system. Especially autoantibodies against dsDNA are an important diagnostic parameter, which have a prevalence of up to 55% before and 70-98% at the time of diagnosis. Additional antigens are produced in the baculovirus/insect cell expression system. These include but are not limited to Ro/SS-A (52 kDa), La/SS-B, U1-snRNP A, Sm proteins like U-snRNP B/B', ribosomal phosphoproteins P0-P2, proliferating cell nuclear antigen (PCNA) and the heterodimeric Ku (p70/p80) protein.

Ordering Information

13000	U1-snRNP 68/70 kDa	0.1 mg
13001		1.0 mg
13100	U1-snRNP A	0.1 mg
13101		1.0 mg
13200	U1-snRNP C	0.1 mg
13201		1.0 mg
13300	U-snRNP B/B'	0.1 mg
13301		1.0 mg
12300	dsDNA (plasmid)	0.1 mg
12301		1.0 mg
14100	Ribosomal Phosphoprotein P0	0.1 mg
14101		1.0 mg
14200	Ribosomal Phosphoprotein P1	0.1 mg
14201		1.0 mg
14300	Ribosomal Phosphoprotein P2	0.1 mg
14301		1.0 mg
15400	Proliferating Cell Nuclear Antigen (PCNA)	0.1 mg
15401		1.0 mg
17300	Ku (p70/p80)	0.1 mg
17301		1.0 mg
17400	Ro/SS-A (60 kDa; recombinant)	0.1 mg
17401		1.0 mg
15500	Ro/SS-A (60 kDa; non recombinant; bovine)	0.1 mg
15501		1.0 mg
12700	Ro/SS-A (52 kDa)	0.1 mg
12701		1.0 mg
12800	La/SS-B	0.1 mg
12801		1.0 mg

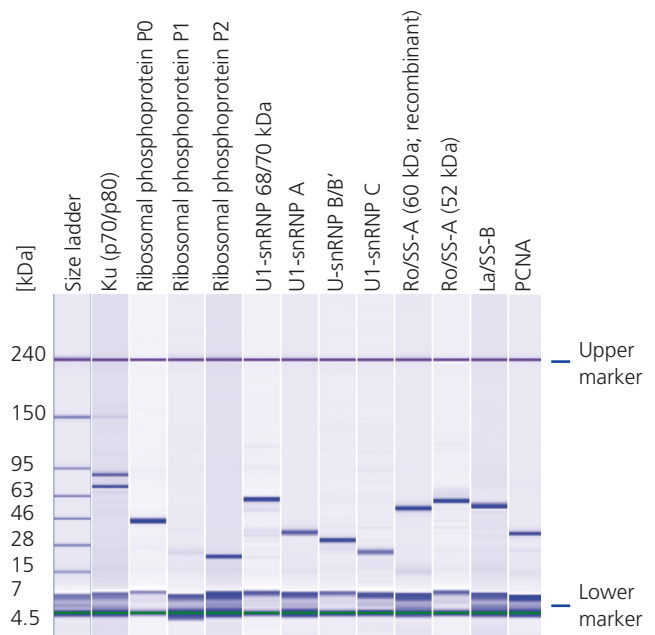


Figure: Electrophoretic analyses of recombinant autoantigens. The loading buffer added to the individual protein preparations contained an upper and lower marker. The molecular weight of the protein standards included in the size ladder are indicated on the left.

References:

- Arbuckle *et al.* (2003) *N Engl J Med.* 349:1526-1533
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- Eriksson *et al.* (2011) *Arthritis Res Ther.* 13:R30
- Heinlen *et al.* (2010) *PLoS One.* 10:e9599
- Heinlen *et al.* (2010) *J Mol Med (Berl).* 88:719-727
- Sherer *et al.* (2004) *Semin Arthritis Rheum.* 34:501-537

In some countries the use of certain antigens in diagnostic tests may be protected by patents. DIARECT is not responsible for the determination of these issues and suggests clarification prior to use.

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