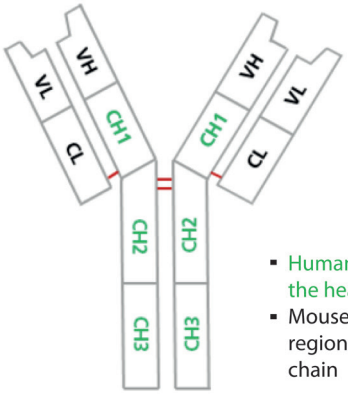
DIARECT
Part of BBI Solutions

Human Chimeric Antibodies - Connective Tissue Disease

Immunoassays for the detection of antibodies in patient samples require reference material to determine cut-off values and test assay integrity, and these are then included in the kit as calibrators or positive controls. One of the latest advances in assay development are chimeric monoclonal antibodies as an alternative to characterized disease state plasma, which are limited in availability, show variability, and there are also safety and ethical issues.



- Human constant region of the heavy chain
- Mouse constant and variable regions of heavy and light chain

Human chimeric monoclonal antibodies are produced in transgenic mouse strains in which the sequence for mouse IgG1 Fc region is substituted with the human sequence. After mouse immunization and use of hybridoma technology, antibodies are generated that retain a human constant region required for recognition by the anti-human conjugate. Autoantibodies against intracellular antigens are commonly found in connective tissue diseases (CTDs). One example is SLE, which can involve joints, kidneys, skin, mucous membranes, and blood vessel walls. The idiopathic inflammatory myopathies dermatomyositis (DM) and polymyositis (PM) are characterized by the presence of inflammatory infiltrates within skeletal muscle.

Ordering Information		
36600	PCNA humAb IgG	0.1 mg
36601		1.0 mg
37300	Jo-1 humAb IgG	0.1 mg
37301		1.0 mg
36800	PL-7 humAb IgG	0.1 mg
36801		1.0 mg
36900	PL-12 humAb IgG	0.1 mg
36901		1.0 mg
36500	SRP54 humAb IgG	0.1 mg
36501		1.0 mg
36700	Mi-2 humAb IgG	0.1 mg
36701		1.0 mg

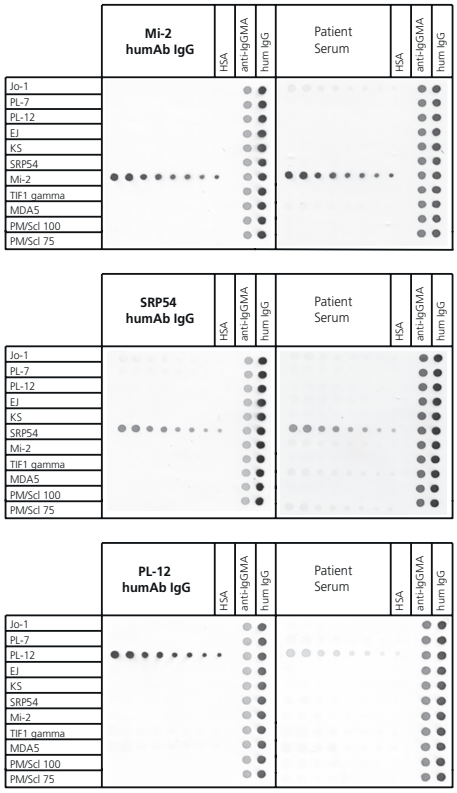


Figure: Immunodot analysis using anti-Mi-2, anti-SRP54,anti-PL-7 and anti-PL-12 human chimeric IgG antibodies and patient samples, showing the reactivity with DIARECT's recombinant myositis antigens Mi-2, SRP54, PL-7 and PL-12. Proteins and controls (HSA, anti-IgGMA and hum IgG) were printed on nitrocellulose membrane as indicated.

Autoantibodies to tRNA synthetases are closely linked with PM/DM detection and diagnosis. Autoantibodies against PL-7 and PL-12 have been found in up to 6% of myositis patients, and autoantibodies against Jo-1 in even 20% of patients with idiopathic inflammatory myopathies. Anti-SRP autoantibodies are mainly associated with a syndrome of a necrotizing myopathy and severe prognosis. Autoantibodies against Mi-2 are considered specific serological markers of DM. Detected in about 20% of myositis sera they are proven markers for acute onset and good response to therapy. Autoantibodies against PCNA are detected in approximately 5-10% of SLE patients.

DIARECT provides human chimeric monoclonal autoantibodies as controls for the antigens described.

References:
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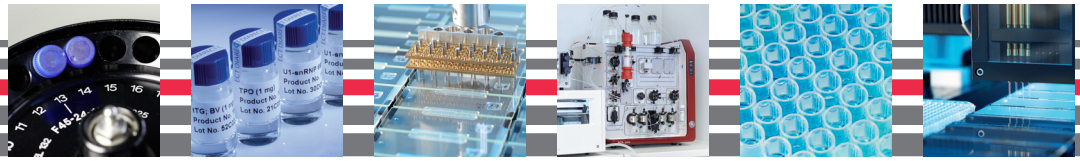

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