

Discover HUMAN Diagnostics

Autoimmune DX Product Catalog 2017/2018



imTEC

Human
Diagnostics Worldwide

HUMAN Autoimmune DX

Horror Autotoxicus

The famed German bacteriologist Paul Ehrlich dismissed the possibility of autoimmune diseases due to what he believed to be the body's innate aversion to immunological self-destruction, which he termed "horror autotoxicus". This set back scientific research in the field for decades. However, medical research eventually led to the inescapable conclusion that autoimmune diseases are real. Since that time, scientists have worked to understand the epidemiology and mechanism behind the broad spectrum of these initially assumed rare diseases affecting human beings of all ages, gender and ethnicities.

Pathophysiology of Autoimmune Diseases

At an early stage of development, the body's immune system learns to distinguish its own cells from foreign cells to protect itself from pathogens. If a pathogen (antigen) is able to cross the body's protective physical barrier (e.g. skin or intestinal epithelia), an inflammatory process is initiated in which the immune system attacks and removes the antigens. Eventually the inflammation subsides and the body's integrity is restored.

During the inflammatory process, not only pathogens are attacked; also the body's own tissue suffers collateral damage from reactive substances released by immune cells. This process leads to the exposure of body's own components to antigen processing cells (APC). Through a process not yet well understood, these body components are accidentally recognized as foreign and targeted by the immune system, leading to a massive release of immune mediators and antibodies. The latter are known as autoantibodies.

These autoantibodies then trigger relapse-remitting inflammatory processes, continuously targeting and destroying the body's own tissue and organs. Depending on the kind of tissue / organ being targeted by the immune response, autoimmune diseases range from rashes and pain to severe organ failure and death.

HUMAN's Contribution to the Improved Care of Patients with Autoimmune Diseases

A majority of countries in the world still lack the appropriate diagnostic tools to provide relief from autoimmune diseases. It has been estimated that nearly half of all cases of autoimmune diseases remain undiagnosed because of the challenges posed by diagnosis. Increasing health standards and awareness of autoimmune diseases lead to a better understanding of their prevalence and incidence. In addition, it will lead to an improvement of the patient's treatment, health and physical condition, even just by alleviating the symptoms. HUMAN's mission with its IMTEC product line is to provide the most valuable and easy to handle diagnostic tools to deliver the highest standards for the diagnosis of autoimmune diseases. This will help physicians to diagnose and treat the autoimmune disorders of their patients at an early stage.

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Human

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Rheumatology

Hepatology

Gastroenterology

Endocrinology

Instruments &
Analyzers

HUMAN Autoimmune DX Quality Made in Germany



HUMAN-IMTEC Autoimmune Diagnostics

HUMAN, with the integration of IMTEC GmbH and its well-established and successful product line in 2006, offers innovative test systems for the diagnosis of autoimmune and rheumatic diseases. In our competence centre for autoimmune diagnostics in Magdeburg, an expert team of highly specialized and committed scientists and technicians develops and produces a broad range of high-quality autoimmune diagnostic products comprising ELISA and line immunoassays (LIA). An expanding patent portfolio and the growing interest in our products worldwide are proof of our consistent reliability and success. The IMTEC product line is CE marked and distributed worldwide by our qualified partners.



HUMAN-IMTEC Autoimmundiagnostika

Mit der Integration der IMTEC GmbH und seiner etablierten und erfolgreichen Produktlinie bietet HUMAN innovative Testsysteme für die Autoimmun- und besonders Rheumadiagnostik an. In unserem Kompetenzzentrum für Autoimmundiagnostika in Magdeburg wird von einem hoch spezialisierten und engagierten Team an Wissenschaftlern und Technikern eine umfangreiche und qualitativ hochwertige Autoimmunlinie entwickelt und produziert. Unser Produktportfolio umfasst ELISA und Line Immuno Assays (LIA). Mehrere patentierte Verfahren und die weltweit stetig wachsende Nachfrage nach unseren Produkten ist Beweis für Zuverlässigkeit und Innovation. Die IMTEC Produktlinie ist CE zertifiziert und wird weltweit von unseren qualifizierten Partnern vertrieben.



HUMAN-IMTEC Diagnostic de maladies auto-immunes

Avec l'intégration de la société IMTEC GmbH en 2006 et sa ligne de produits performants bien établie sur le marché, HUMAN propose des systèmes de tests innovants pour le diagnostic de maladies auto-immunes et rhumatismales. Dans notre centre de compétence spécialisé dans le diagnostic de maladies auto-immunes de Magdeburg, un groupe d'experts formé de scientifiques et techniciens hautement spécialisés et engagés développe et fabrique une vaste gamme de produits de diagnostic de haute qualité, parmi lesquels les dosages ELISA et LIA (Line Immuno Assay). Plusieurs brevets et l'intérêt croissant que suscitent nos produits dans le monde entier attestent d'une fiabilité et d'un succès constant. Bénéficiant du marquage CE, la ligne de produits IMTEC est distribuée en Europe et dans le monde entier par nos partenaires qualifiés.

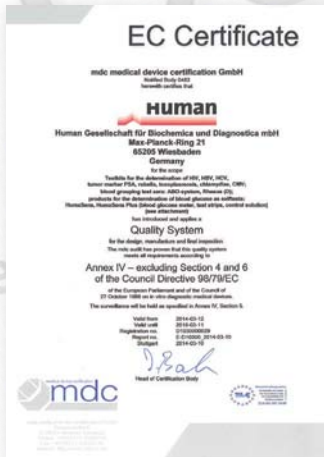


HUMAN-IMTEC Diagnóstico de enfermedades autoinmunes

HUMAN, que integra en el año 2006 la empresa IMTEC GmbH con una línea de productos bien establecida y exitosa en el mercado, ofrece sistemas innovadores de ensayo para el diagnóstico de enfermedades autoinmunes y reumáticas. En nuestro centro de competencias en el campo del diagnóstico autoinmune con sede en Magdeburgo, un equipo de expertos formado por científicos y técnicos altamente especializados y comprometidos desarrolla y produce una amplia gama de productos diagnósticos autoinmunes de alta calidad, entre los que se encuentran los dedicados a los ensayos ELISA y los inmunoensayos lineales (LIA). Las numerosas patentes y el interés creciente que despiertan nuestros productos en todo el mundo demuestran la constancia de su fiabilidad y éxito. La línea de productos IMTEC lleva la marca CE y se distribuye por todo el mundo de mano de nuestros socios cualificados.

HUMAN

Committed to Quality



Quality is the Essence

For HUMAN, quality is not simply a phrase, it is the essence of our philosophy. Over the past 40 years HUMAN has always acted in accordance with internationally recognised quality standards. Today HUMAN's facilities, processes and products are in full compliance with the highest quality standards—the IVD Directive (CE mark) and ISO 13485:2012.



A certified quality management system in accordance with the international standards DIN EN ISO 9001:2008 and DIN EN ISO 13485:2012, even surpassing the requirements of cGMP, guarantees that all our products are designed, manufactured, controlled and delivered to exceed the requirements and high expectations of our customers worldwide.

Product Catalog with Interactive Features

Scan, save, share – We invite you to check out HUMAN’s new product catalog with interactive features.

Scan the QR barcodes alongside the products to discover detailed information and directly access flyers & videos in seconds on your mobile device.



Different QR Code indicator icons



Flyer



Video



Website

Description

Indicator icon

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Autoimmune DX Technologies

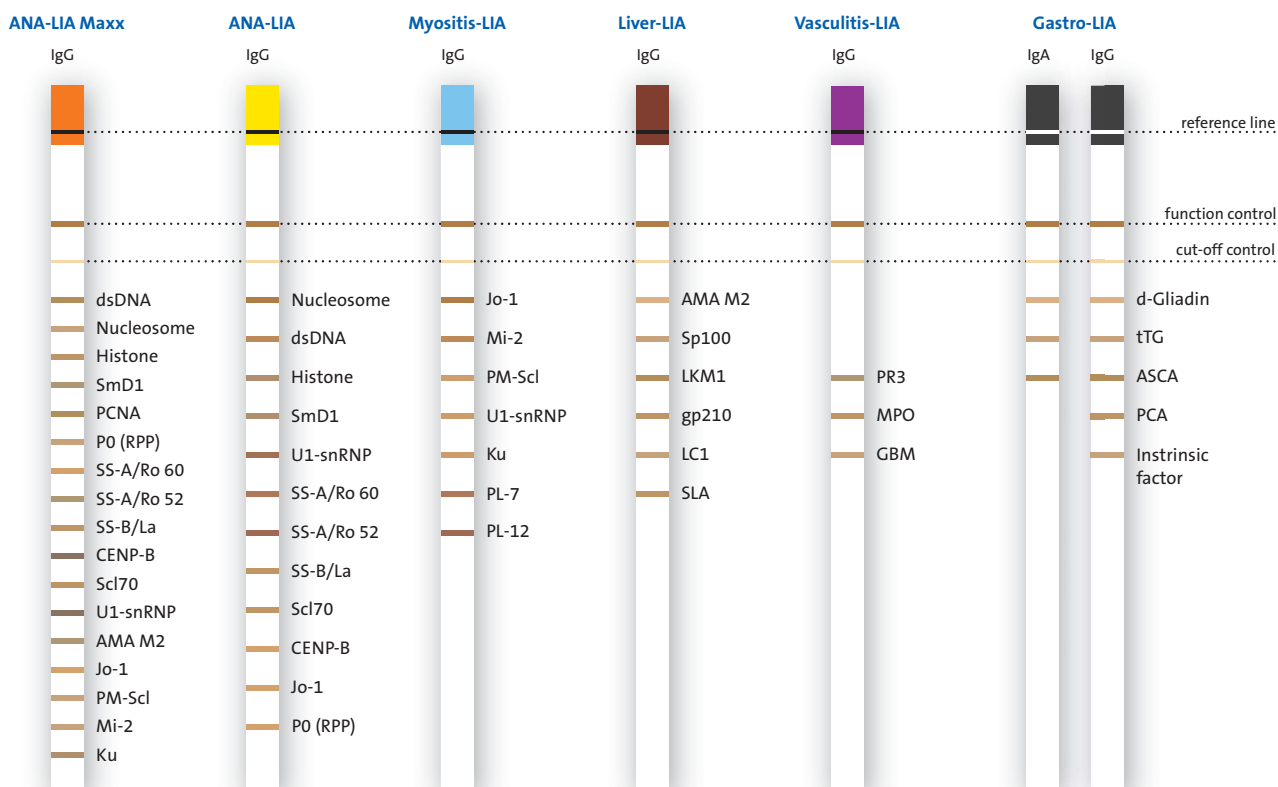
LIA Technology

Autoimmune diseases are characterized by autoantibody patterns found in patient sera. HUMAN's autoimmune line immune assays (LIAs) are developed for rapid autoantibody profiling. LIAs are simple to use screening assays. By employing disease-specific antigens, up to 17 different autoantibodies can be differentiated with a single-shot assay. This state-of-the-art autoimmune diagnostic tool is produced by spotting antigens in lines on a simple nitrocellulose membrane utilizing the newest technologies available in the market, including HUMAN's patented

epitope-preserving technology. Bound autoantibodies are visualized by using specific HRP-conjugated secondary antibodies that specifically target human autoantibodies and a LIA specific substrate. Samples positive for autoantibodies can be easily detected by comparing the pattern of brown lines to the standardized line (cut-off) that is also spotted on the LIAs. LIAs are ideal autoimmune diagnostic tools for screening and differential diagnosis as well as monitoring autoimmune patients by identifying specific autoantibodies in one shot.

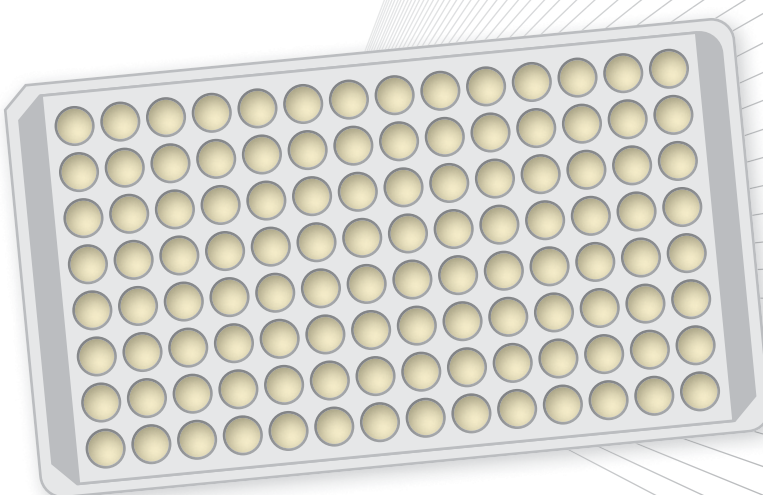


Line Immuno Assays



ELISA Technology

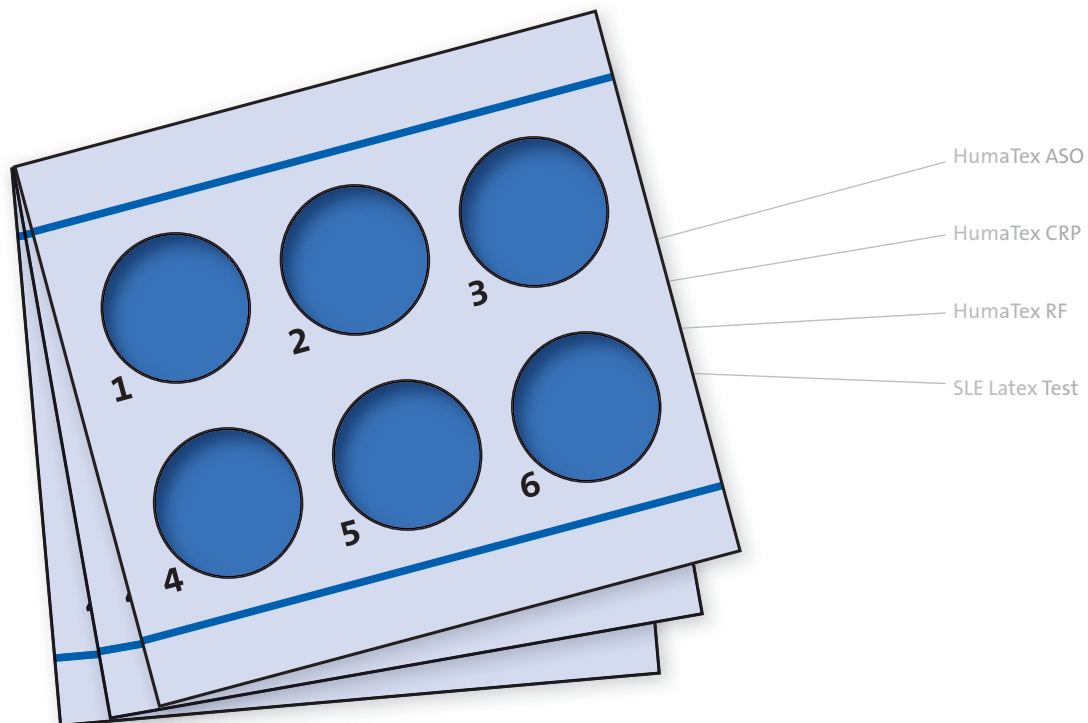
The HUMAN ELISAs for Autoimmune DX offer a unique solution for all sizes of laboratories from low to high throughput. The ELISA line consists of 61 ELISAs (both qualitative and quantitative) for the differential diagnosis of autoimmune diseases. To offer the best solution for the requirements of each laboratory, HUMAN offers screening ELISAs for the detection of different subtypes (IgG, IgM, IgA) in one assay and single-parameter ELISAs for separate autoantigens. The quantitative ELISAs are ideally suited for the monitoring of disease progression. All ELISAs are optimized for automation and validated for use with HUMAN's automated ELISA instruments: Elisys Uno, Elisys Duo and Elisys Quattro. Handling is as simple as can be thanks to ready-to-use reagents, breakable microtiter wells and reagents largely interchangeable between different assays and lots. The incubation conditions are the same for almost all assays.



- AMA M2
- ANA
- Annexin V
- Anti-C3d-CIC
- TSH
- Vitamin D
- C1q
- C1q-CIC
- Cardiolipin
- CCP
- CENP-B
- CIC
- d-Gliadin
- CCP2
- dsDNA
- GBM
- gp210
- Histone
- IgM
- Jo-1
- Ku
- LBR
- LKM-1
- LPS
- Myeloperoxidase
- Nucleosome
- oxLDL
- P0 (RPP)
- PCNA
- Phosphatidic acid
- Phosphatidylethanolamine
- Phosphatidylinositol
- Phosphatidylserine
- PM-Scl
- Proteinase 3
- Prothrombin
- RA33
- RF
- Salmonella
- Scl70
- Single-stranded DNA
- SLA
- SmD1
- Sp100
- SS-A/Ro 52
- SS-A/Ro 60
- SS-B/La
- beta₂-glycoprotein 1
- T3
- T4
- Thyroglobulin
- Thyroperoxidase
- Tissue transglutaminase
- TPO
- TSH-receptor
- U1-snRNP

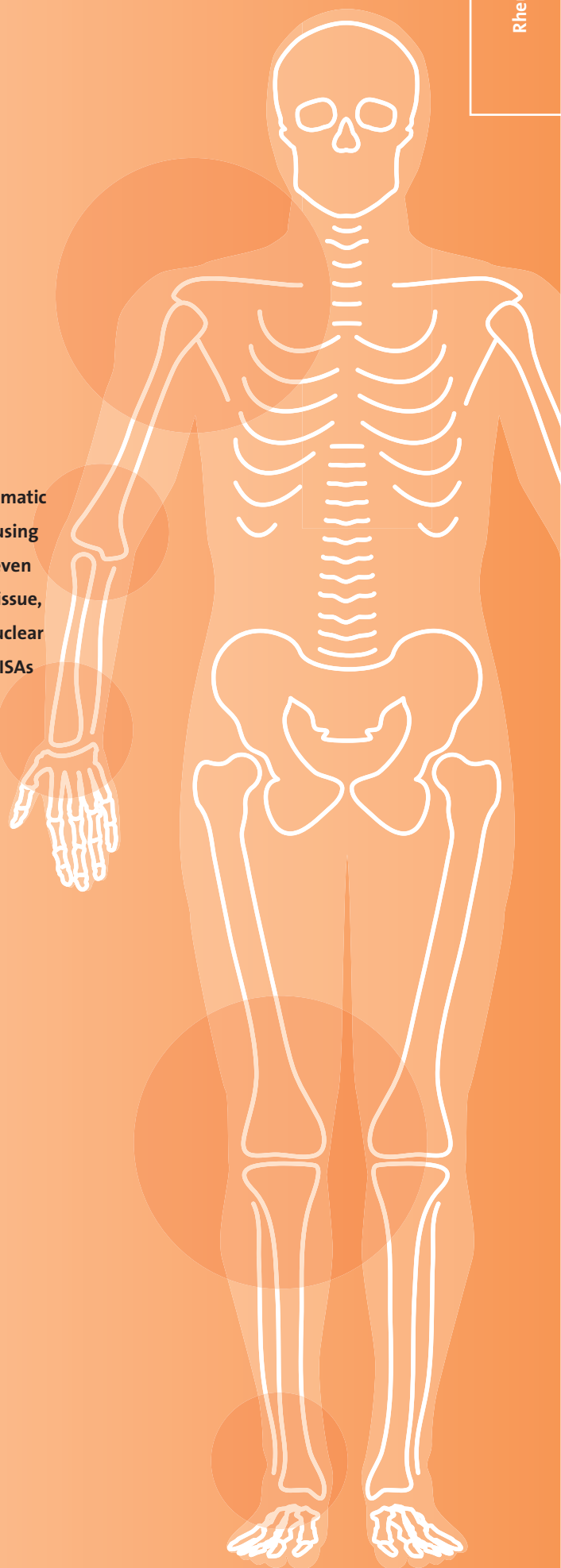
Rapid Screening Technology

HUMAN's autoimmune rapid screening tests use latex beads coated with disease relevant and specific antigens. In the presence of autoantibodies in patient serum, the latex beads agglutinate and provide fast qualitative results in less than 2 minutes. Rapid tests for screening are ideal for identifying potential autoimmune patients with rheumatic diseases quickly and easily.



Rheumatology

The field of rheumatology covers all systemic autoimmune rheumatic diseases (SARD) that target multiple tissues and /or organs, causing inflammation that can result in rashes, pain, discomfort and even death. The major targets of SARDs are, for instance, connective tissue, joints, muscles and blood vessels. After a first screen for anti-nuclear antibodies, IMTEC ANA-LIA, ANA-LIA Maxx and quantitative ELISAs provide a basis to identify the specific SARD.





1.1 Connective Tissue Diseases

Clinical Characteristics

Mixed Connective Tissue Disease (MCTD)

Mixed connective tissue disease with clinical manifestations of a combination of SLE, scleroderma and polymyositis

Symptoms

- Swelling of hands and fingers
- Raynaud's phenomenon
- Specific symptoms of SLE, scleroderma and polymyositis

Sjögren's Syndrome (SjS)

Chronic inflammatory disease of the exocrine glands

Symptoms

- Dry eye syndrome
- Dry mouth

Myositis

Systemic inflammation of the muscles (polymyositis, PM) or both skin and muscles (dermatomyositis, DM)

Symptoms

- Muscle weakness
- Muscle pain
- Skin lesions

Systemic Sclerosis (SSc)

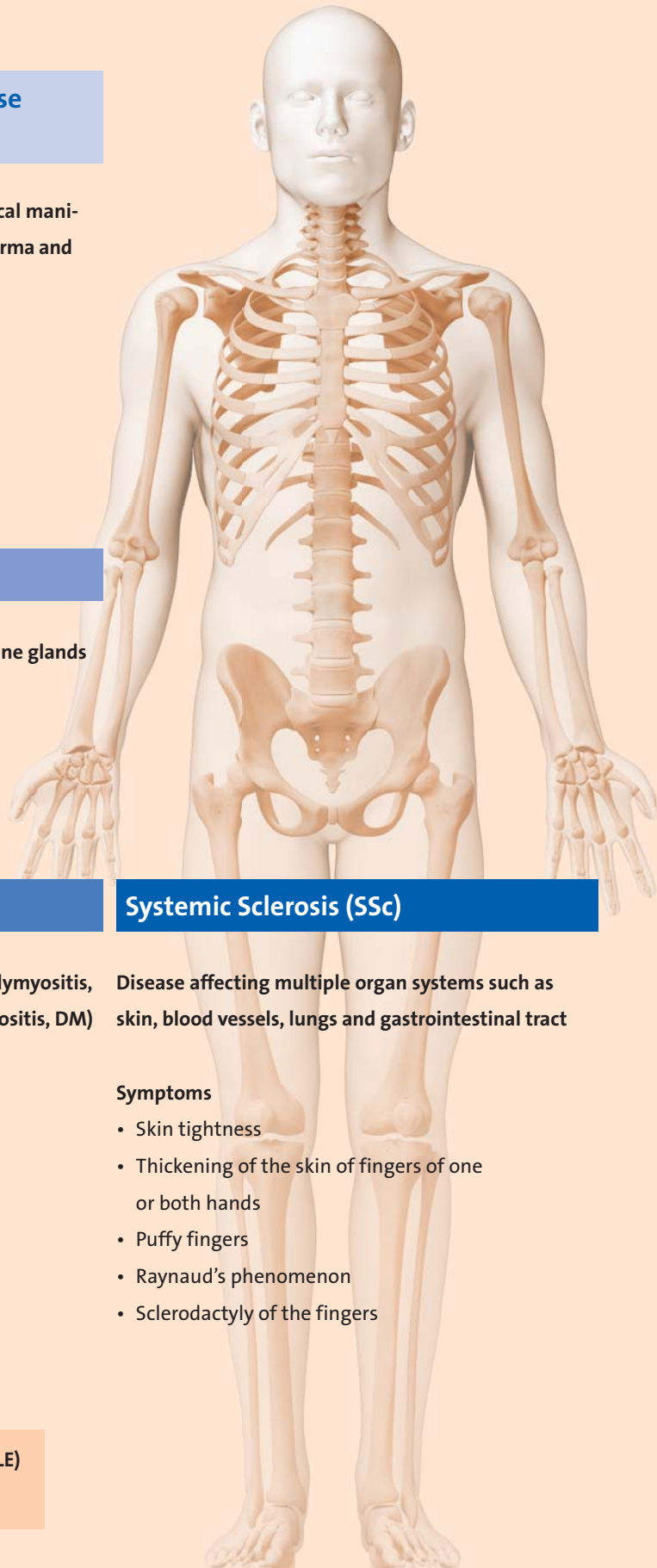
Disease affecting multiple organ systems such as skin, blood vessels, lungs and gastrointestinal tract

Symptoms

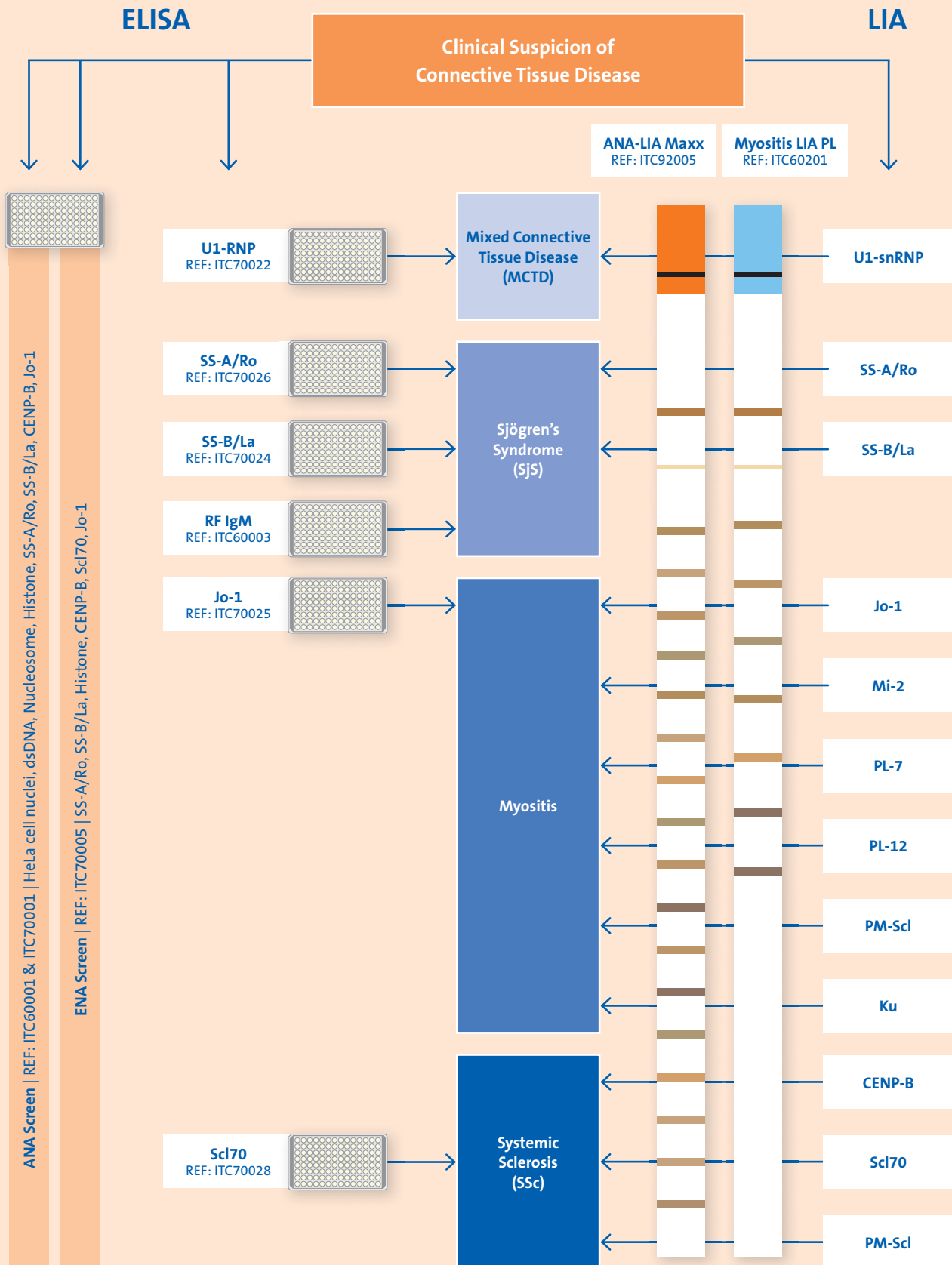
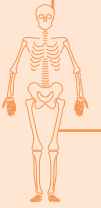
- Skin tightness
- Thickening of the skin of fingers of one or both hands
- Puffy fingers
- Raynaud's phenomenon
- Sclerodactyly of the fingers

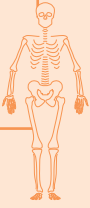


Systemic Lupus Erythematosus (SLE)
see page 18



Diagnostic Options at a Glance

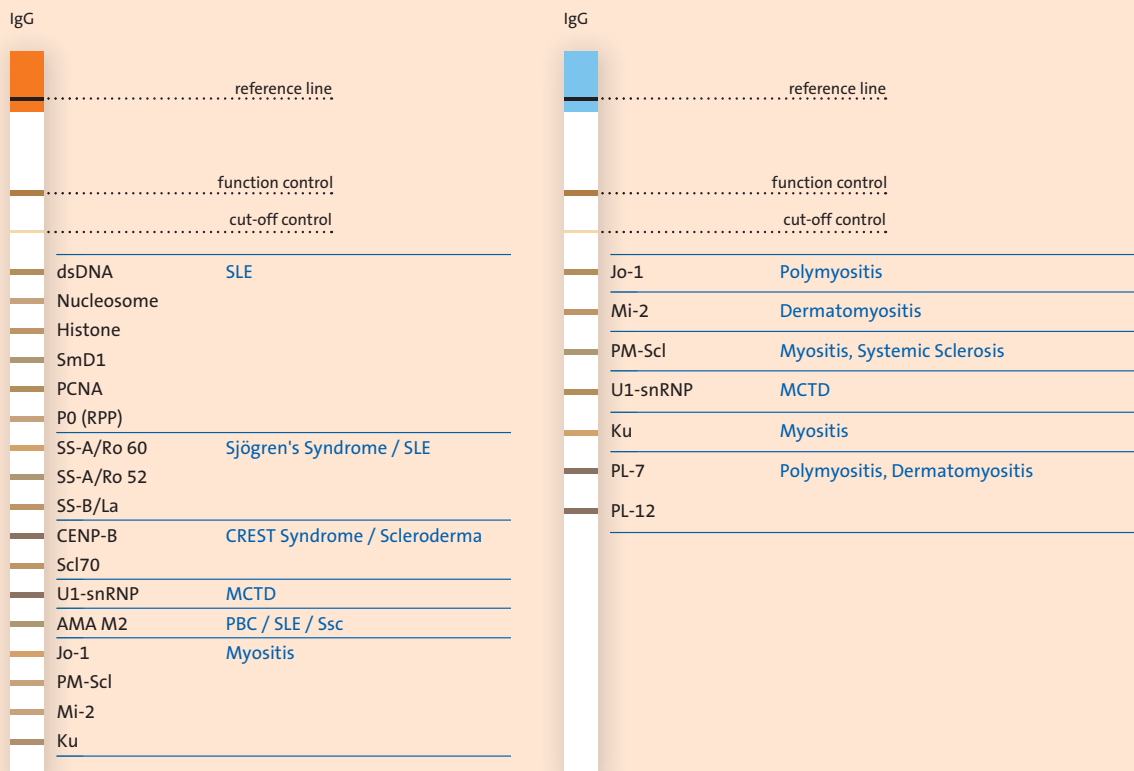




1.1 Connective Tissue Diseases

Line Immuno Assay (LIA)

REF	Format	Unit / Size	Antigen	No. of Antigens	Calibration	Color Coding
ANA-LIA Maxx Determination of anti-nuclear antibodies						
ITC92005	IgG	24	dsDNA, Nucleosome, Histone, SmD1, PCNA, PO, SS-A/Ro60, SS-A/Ro 52, SS-B/La, CENP-B, Scl70, U1-snRNP, AMA M2, Jo-1, PM-Scl100, Mi-2 and Ku 70/80	17	Qualitative, internal function and cut-off control	Orange
Myositis-LIA PL Determination of myositis antibodies						
ITC60201	IgG	24	Jo-1, Mi-2, PM-Scl100, U1-snRNP, Ku 70/80, PL-7, PL-12	7	Qualitative, internal function and cut-off control	Blue



Line Immuno Assays

ELISA



REF	Format	Unit / Size	Antigen	Calibration	Cut-off
ANA SCREEN					
Determination of antibodies to anti-nuclear antigens					
ITC60001	IgG/IgA/ IgM	96	HeLa cell nuclei, dsDNA, Nucleosome, Histone, SS-A/Ro, SS-B/La, CENP-B, Jo-1	Quantitative, 31.25 / 62.5 / 125 250 / 500 U/ml	40 U/ml
ANA SCREEN (cut-off)					
Determination of antibodies to anti-nuclear antigens					
ITC70001	IgG/IgA/ IgM	96	HeLa cell nuclei, dsDNA, Nucleosome, Histone, SS-A/Ro, SS-B/La, CENP-B, Jo-1	Qualitative	cut-off calibrator
ENA SCREEN (cut-off)					
Determination of antibodies to extractable nuclear antigens					
ITC70005	IgG	96	Nucleosome, Histone, SS-A/Ro, SS-B/La, CENP-B, Jo-1	Qualitative	cut-off calibrator
Jo-1-ANTIBODIES					
Determination of antibodies to Jo-1					
ITC70025	IgG	96	Jo-1	Quantitative / Qualitative, 12.5/25/50/100/200 U/ml	25 U/ml
SS-A/Ro-ANTIBODIES					
Determination of antibodies to SS-A/Ro					
ITC70026	IgG	96	SS-A/Ro 60, SS-A/Ro 52	Quantitative / Qualitative, 12.5/25/50/100/200 U/ml	25 U/ml
SS-B/La-ANTIBODIES					
Determination of antibodies to SS-B/La					
ITC70024	IgG	96	SS-B/La	Quantitative / Qualitative, 12.5/25/50/100/200 U/ml	25 U/ml
Scl70-ANTIBODIES					
Determination of antibodies to Scl70					
ITC70028	IgG	96	Scl70	Quantitative / Qualitative, 12.5/25/50/100/200 U/ml	25 U/ml
U1-snRNP-ANTIBODIES					
Determination of antibodies to U1-snRNP					
ITC70022	IgG	96	U1-snRNP	Quantitative / Qualitative, 12.5/25/50/100/200 U/ml	25 U/ml



1.2 Systemic Lupus Erythematosus

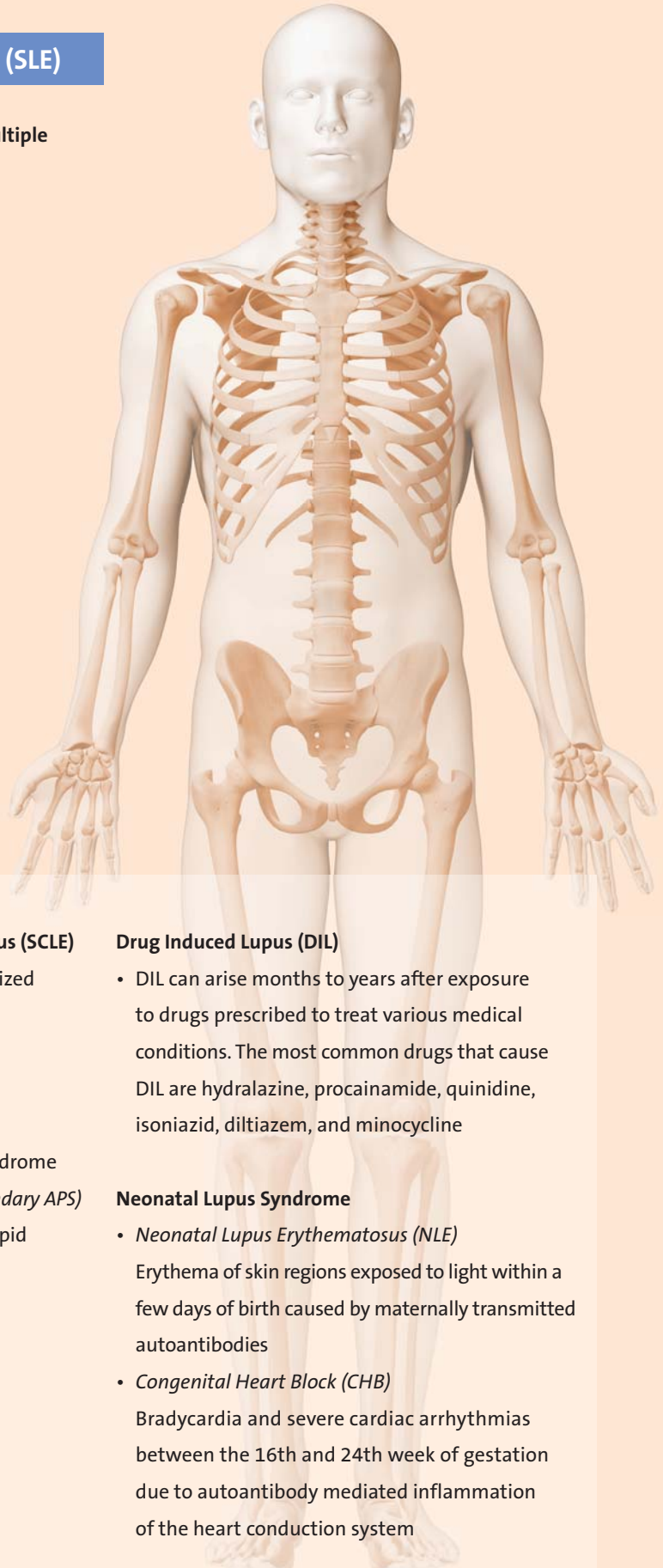
Clinical Characteristics

Systemic Lupus Erythematosus (SLE)

Chronic autoimmune disease affecting multiple organ systems

Symptoms

- Malar rash
- Discoid rash
- Photosensitivity
- Oral ulcers
- Nonerosive arthritis
- Serositis
- Nephritis
- Neurological disorders
- Hematologic disorders



SLE Subsets

Subacute Cutaneous Lupus Erythematosus (SCLE)

- Chronic remitting dermatitis characterized by severe photosensitivity

Secondary SLE Syndrome (sSLE)

- *Secondary Sjögren's syndrome in SLE*
SLE in combination with Sjögren's syndrome
- *Antiphospholipid syndrome in SLE (secondary APS)*
SLE in combination with antiphospholipid syndrome

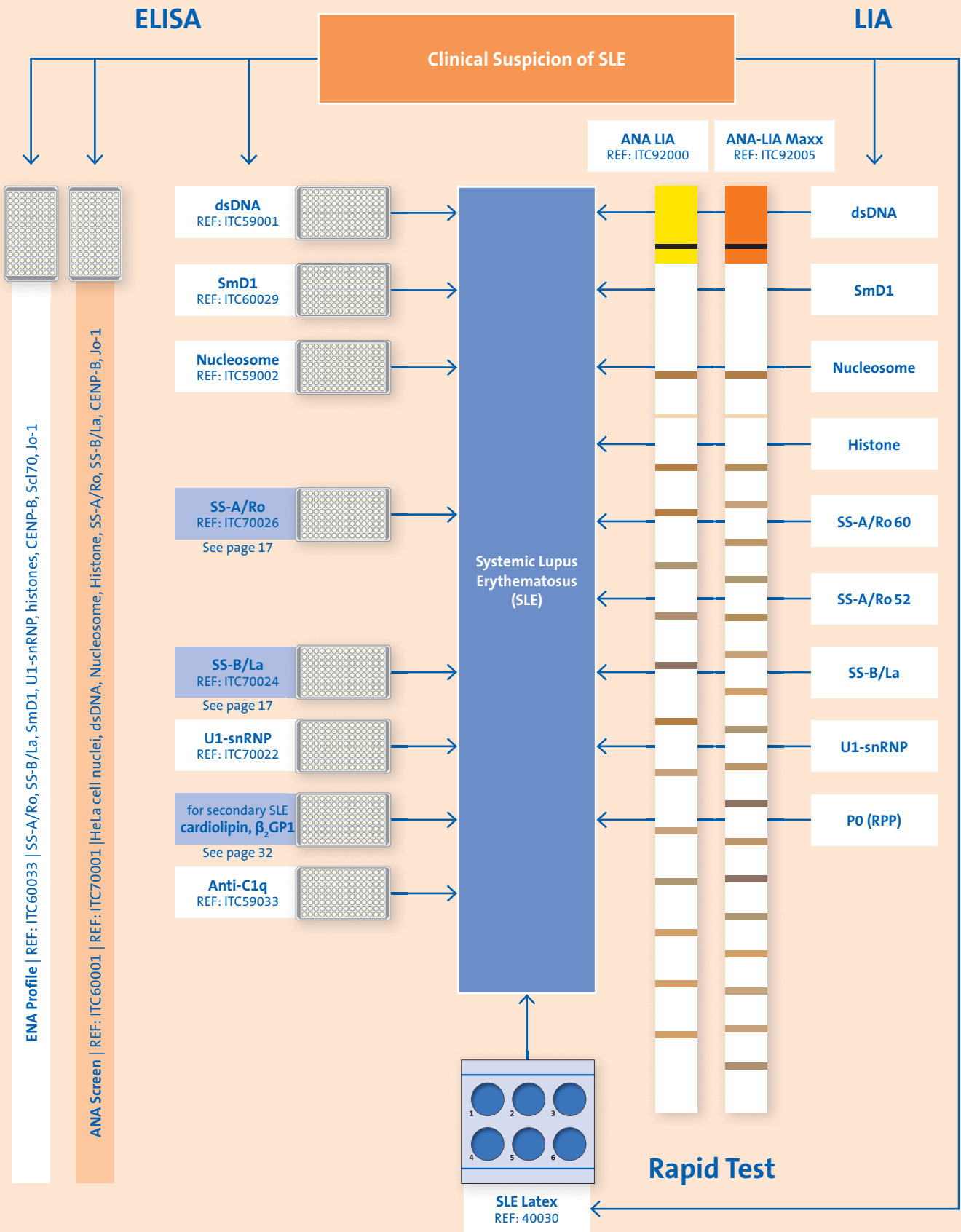
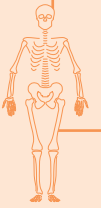
Drug Induced Lupus (DIL)

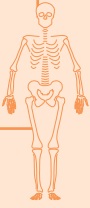
- DIL can arise months to years after exposure to drugs prescribed to treat various medical conditions. The most common drugs that cause DIL are hydralazine, procainamide, quinidine, isoniazid, diltiazem, and minocycline

Neonatal Lupus Syndrome

- *Neonatal Lupus Erythematosus (NLE)*
Erythema of skin regions exposed to light within a few days of birth caused by maternally transmitted autoantibodies
- *Congenital Heart Block (CHB)*
Bradycardia and severe cardiac arrhythmias between the 16th and 24th week of gestation due to autoantibody mediated inflammation of the heart conduction system

Diagnostic Options at a Glance



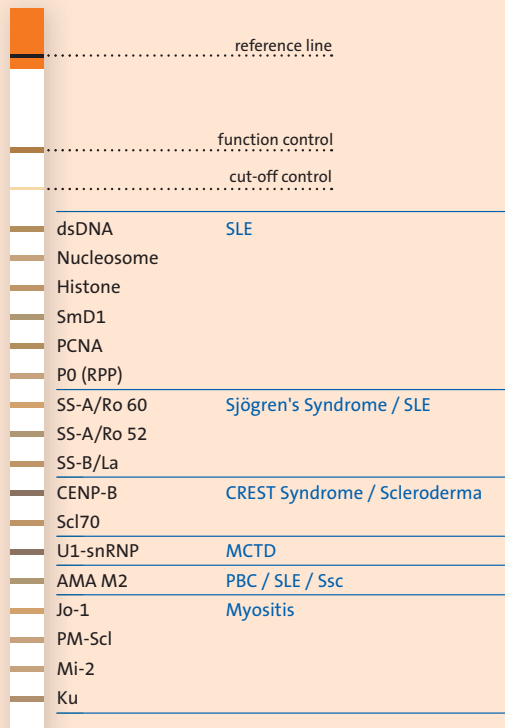


1.2 Systemic Lupus Erythematosus

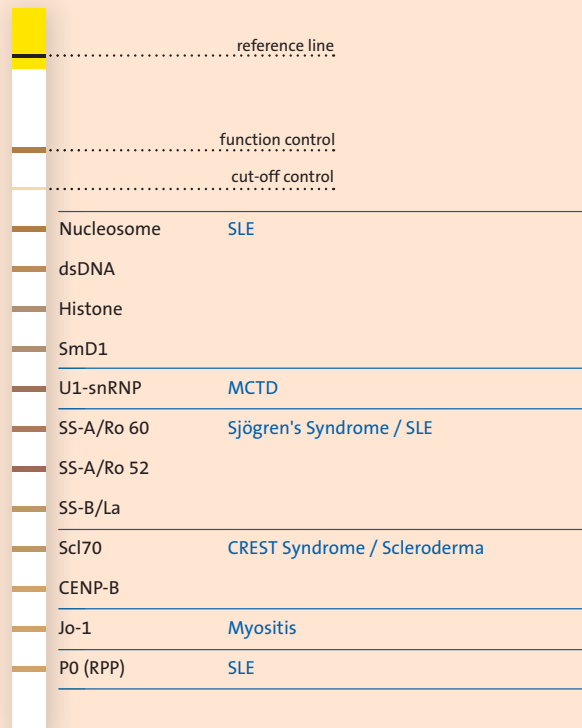
Line Immuno Assay (LIA)

REF	Format	Unit / Size	Antigen	No. of Antigens	Calibration	Color Coding
ANA-LIA Maxx Determination of anti-nuclear antibodies						
ITC92005	IgG	24	dsDNA, Nucleosome, Histone, SmD1, PCNA, PO, SS-A/Ro60, SS-A/Ro 52, SS-B/La, CENP-B, Scl70, U1-snRNP, AMA M2, Jo-1, PM-Scl100, Mi-2 and Ku 70/80	17	Qualitative, internal function and cut-off control	Orange
ANA-LIA Determination of anti-nuclear antibodies						
ITC92000	IgG	24	Nucleosome, dsDNA, Histone, SmD1, U1-snRNP, SS-A/Ro60, SS-A/Ro 52, SS-B/La, Scl70, CENP-B, Jo-1, RPP/PO and PO	12	Qualitative, internal function and cut-off control	Yellow

IgG



IgG



Line Immuno Assays

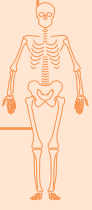


ELISA

REF	Format	Unit / Size	Antigen	Calibration	Cut-off
ENA-Profile					
Simultaneously determination of antibodies to extractable nuclear antigens					
ITC60033	IgG	96	SS-A/Ro, SS-B/La, SmD1, U1-snRNP, Histone, CENP-B, Scl70, Jo-1	Qualitative, cut-off control	cut-off calibrator
ANTI-C1q-ANTIBODIES					
Determination of autoantibodies to complement C1q					
ITC59033	IgG	96	C1q	Quantitative, 12.5 / 25 / 50 / 100 / 200 U/ml	20 U/ml
dsDNA-ANTIBODIES					
Determination of antibodies to double-stranded DNA					
ITC59001	IgG	96	Double-stranded DNA	Quantitative, 12.5 / 25 / 50 / 100 / 200 IU/ml	25 IU/ml
NUCLEOSOME-ANTIBODIES					
Determination of antibodies to nucleosomes					
ITC59002	IgG	96	Nucleosomes	Quantitative, 12.5 / 25 / 50 / 100 / 200 U/ml	25 U/ml
SmD1-ANTIBODIES IgG					
Determination of antibodies to SmD1					
ITC60029	IgG	96	SmD1-peptide	Quantitative / Qualitative, 12.5 / 25 / 50 / 100 / 200 U/ml	25 U/ml

Rapid Screening Tests

REF	Format	Unit / Size	Antigen	Calibration	Cut-off
SLE Latex Test					
Latex slide test					
40031	Complete kit	20	DNP	Qualitative	
40030		50			
GLYCINE-NaCl BUFFER					
Glycine-NaCl Buffer for sample dilution of latex slide tests					
40037	Buffer	100 ml			



1.3 Rheumatoid and Juvenile Idiopathic Arthritis

Clinical Characteristics

Rheumatoid Arthritis (RA)

Systemic inflammatory disorder causing irreversible joint damage

Symptoms

- Morning stiffness
- Redness and swelling of joints
- Weakness
- Symmetric arthritis
- Arthritis of 3 or more joints
- Malaise (fatigue, weight loss, depression)

Juvenile Idiopathic Arthritis (JIA)

A group of joint inflammation diseases with an onset before 16 years of age in the absence of other articular diseases (see table “Differential Diagnosis”).

JIA is classified into categories based on the number of joints involved and the presence of extra-articular symptoms.

Symptoms

- Persistent or recurring arthritis of at least 6 weeks duration
- Fever
- Rash
- Psoriasis
- Enteritis

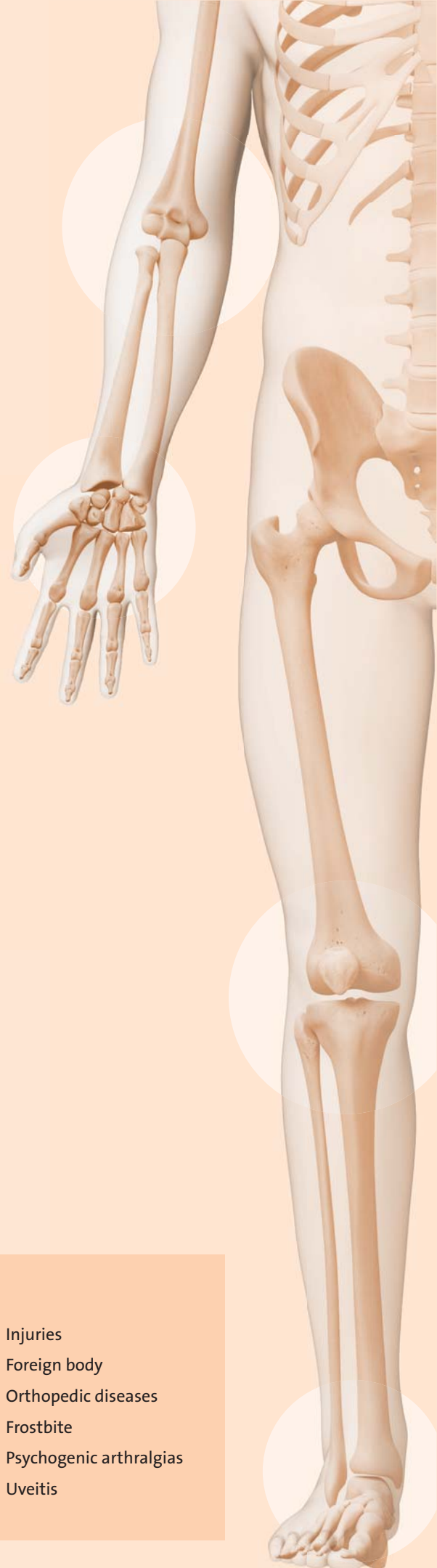


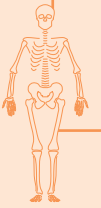
Differential Diagnosis of JIA

- | | |
|------------------------------|---------------------------|
| • Acute rheumatic fever | • Injuries |
| • Infections | • Foreign body |
| • Reactive arthritis | • Orthopedic diseases |
| • Connective tissue diseases | • Frostbite |
| • Immunodeficiency diseases | • Psychogenic arthralgias |
| • Hematologic diseases | • Uveitis |
| • Neoplasia | |

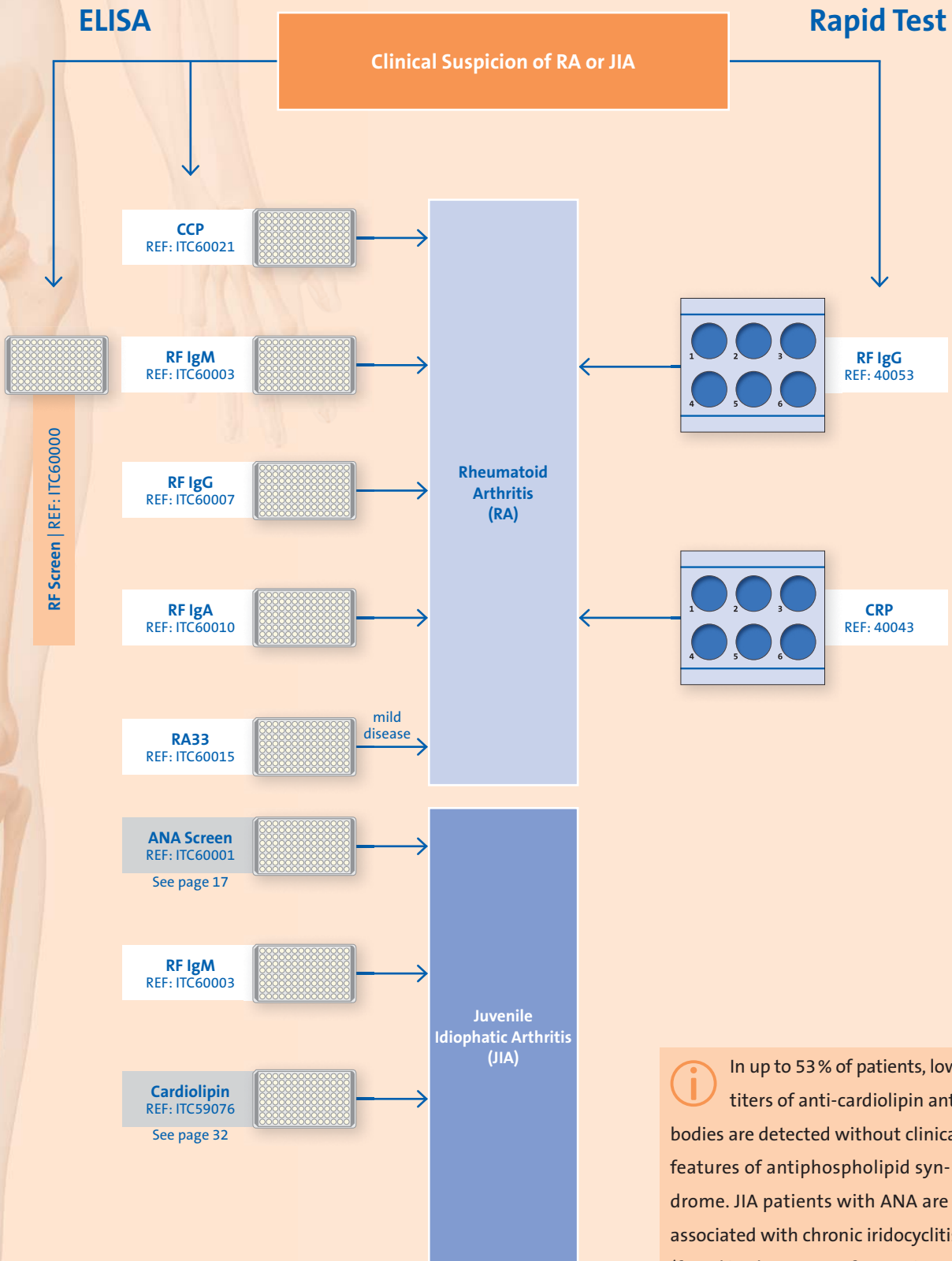


Rheumatoid Arthritis





Diagnostic Options at a Glance



i In up to 53% of patients, low titers of anti-cardiolipin antibodies are detected without clinical features of antiphospholipid syndrome. JIA patients with ANA are associated with chronic iridocyclitis (found in about 30% of JIA patients). Histone antibodies are detectable in 51% of JIA patients.



1.3 Rheumatoid and Juvenile Idiopathic Arthritis

ELISA

REF	Format	Unit / Size	Antigen	Calibration	Cut-off
CCP-ANTIBODIES					
Determination of antibodies to cyclic citrullinated peptide					
ITC60021	IgG	96	CCP2	Quantitative / Qualitative, 25 / 50 / 200 / 800 / 1600 U/ml	25 U/ml
RA33-ANTIBODIES					
Determination of antibodies to RA33					
ITC60015	IgG	96	RA33	Quantitative, 12.5 / 25 / 50 / 100 / 200 U/ml	25 U/ml
RF SCREEN					
Determination of antibodies to rheumatoid factor					
ITC60000	IgG / IgA / IgM	96	Rabbit IgG	Quantitative, 12.5 / 25 / 50 / 100 / 200 U/ml	40 U/ml
RF IgA					
Determination of antibodies to rheumatoid factor					
ITC60010	IgA	96	Rabbit IgG	Quantitative, 12.5 / 25 / 50 / 100 / 200 U/ml	25 U/ml
RF IgG					
Determination of antibodies to rheumatoid factor					
ITC60007	IgG	96	Rabbit IgG	Quantitative, 12.5 / 25 / 50 / 100 / 200 U/ml	30 U/ml
RF IgM					
Determination of antibodies to rheumatoid factor					
ITC60003	IgM	96	Rabbit IgG	Quantitative, 12.5 / 25 / 50 / 100 / 200 IU/ml	15 IU/ml



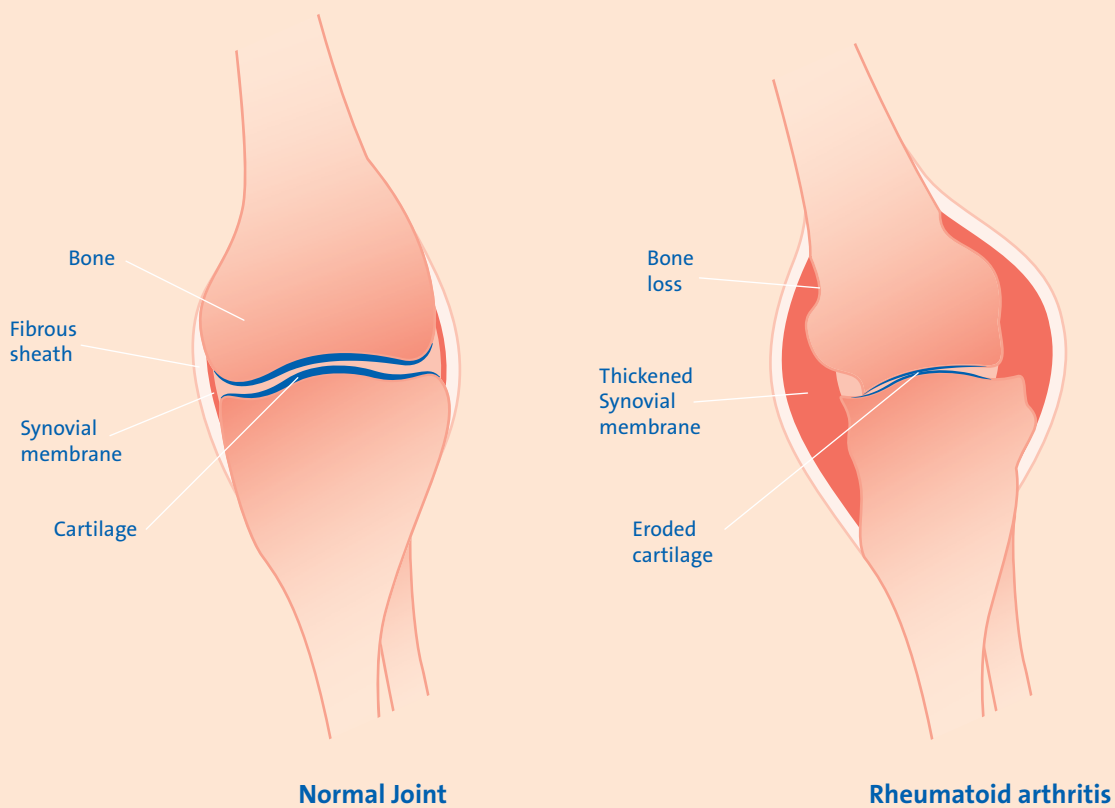
RA33 ELISA

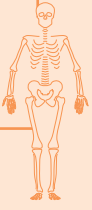


Rapid Screening Tests

REF	Format	Unit / Size	Antigen	Calibration	Cut-off
HumaTex CRP					
Latex slide test					
40042	Complete kit	40	CRP antibodies	Qualitative	6 mg/l Serum
40043		100			
40040	Latex reagent	100			
HumaTex RF					
Latex slide test					
40052	Complete kit	40	IgG antibodies	Qualitative	12 IU/l Serum
40053		100			
40050	Latex reagent	100			
GLYCINE-NaCl BUFFER					
Glycine-NaCl Buffer for sample dilution of latex slide tests					
40037	Buffer	100 ml			

Joint affected by rheumatoid arthritis





1.4 Vasculitis

Clinical Characteristics

Eosinophile Granulomatosis with Polyangiitis (EGPA) [Churg-Strauss Syndrome]

Vasculitis of glomerular and pulmonary capillaries with multi organ involment: lungs, skin, kidneys, nerves

Symptoms

- Asthma
- Nasal polyps
- Allergic rhinitis

Microscopic Polyangiitis (MPA)

Necrotizing immune vasculitis of small vessels, capillaries, venules, arterioles with multi organ involvement: lungs, skin, kidneys, nerves

Symptoms

- Skin lesions
- Inflammation of the kidney (glomerulonephritis)
- Blood and protein loss, shortness of breath, swelling of the legs
- Numbness
- Tingling
- Alveolar hemorrhage
- Night sweat
- Weight loss
- Fever
- Fatigue
- Malaise

Granulomatosis with Polyangiitis (GPA) [Wegeners's Granulomatosis]

Necrotizing vasculitis of small to medium-size vessels: capillaries, venules, arterioles and arteries. Granulomatous inflammation involving multiple organs: e.g. lungs, eyes, skin, kidneys, joints, nerves

Symptoms

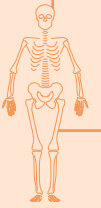
- Chronic hemorrhagic rhinitis
- Sinusitis
- Otitis media
- Symptoms in accordance with organ involvement
- Night sweats
- Weight loss
- Fatigue
- Fever

Goodpasture's Syndrome – anti-GBM Disease

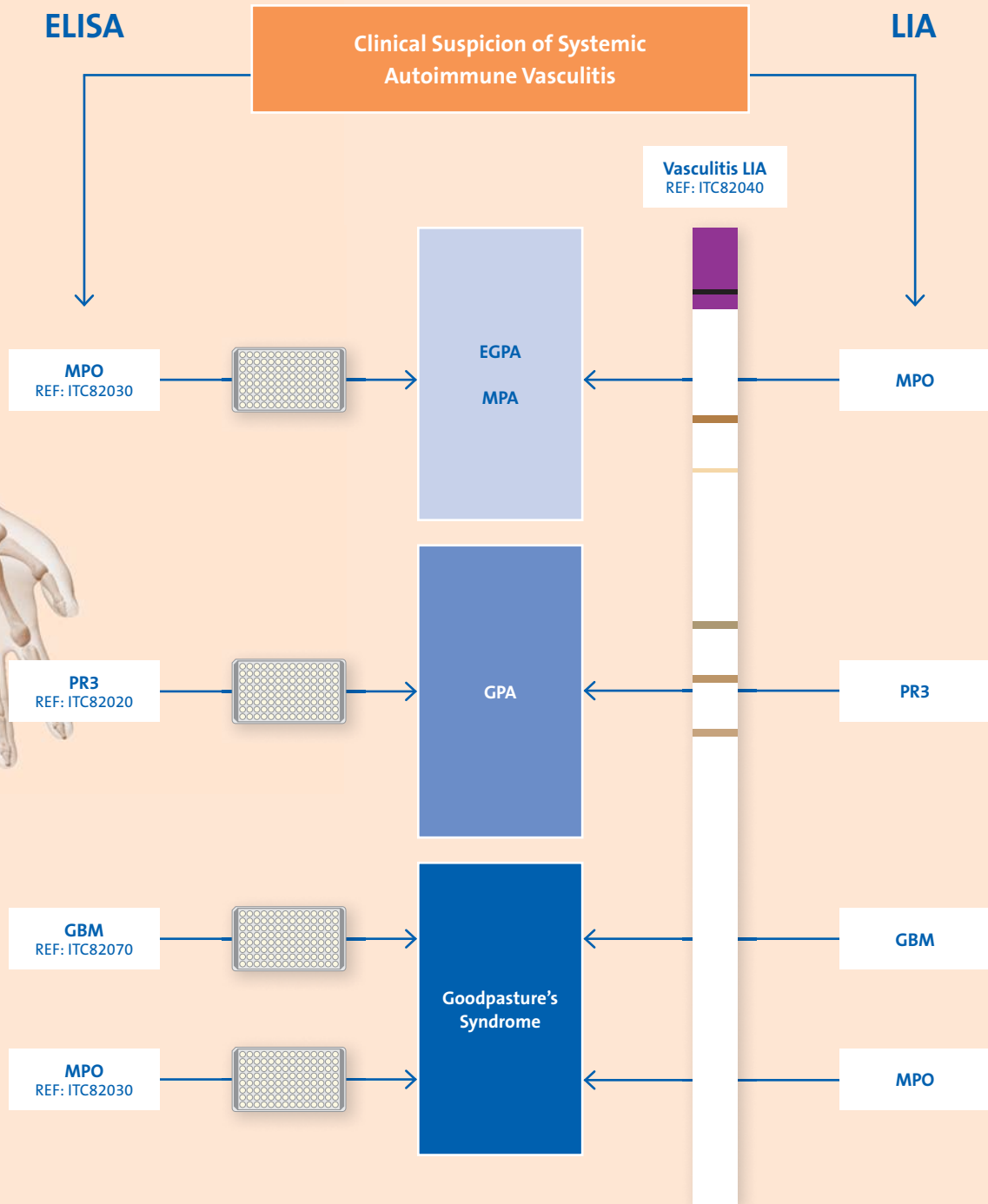
Chronic autoimmune glomerulonephritis caused by anti GBM (glomerular basement membrane) antibodies

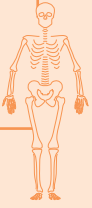
Symptoms

- Rapidly progressive glomerulonephritis
- Pulmonary hemorrhage
- Alveolitis
- Kidney failure



Diagnostic Options at a Glance

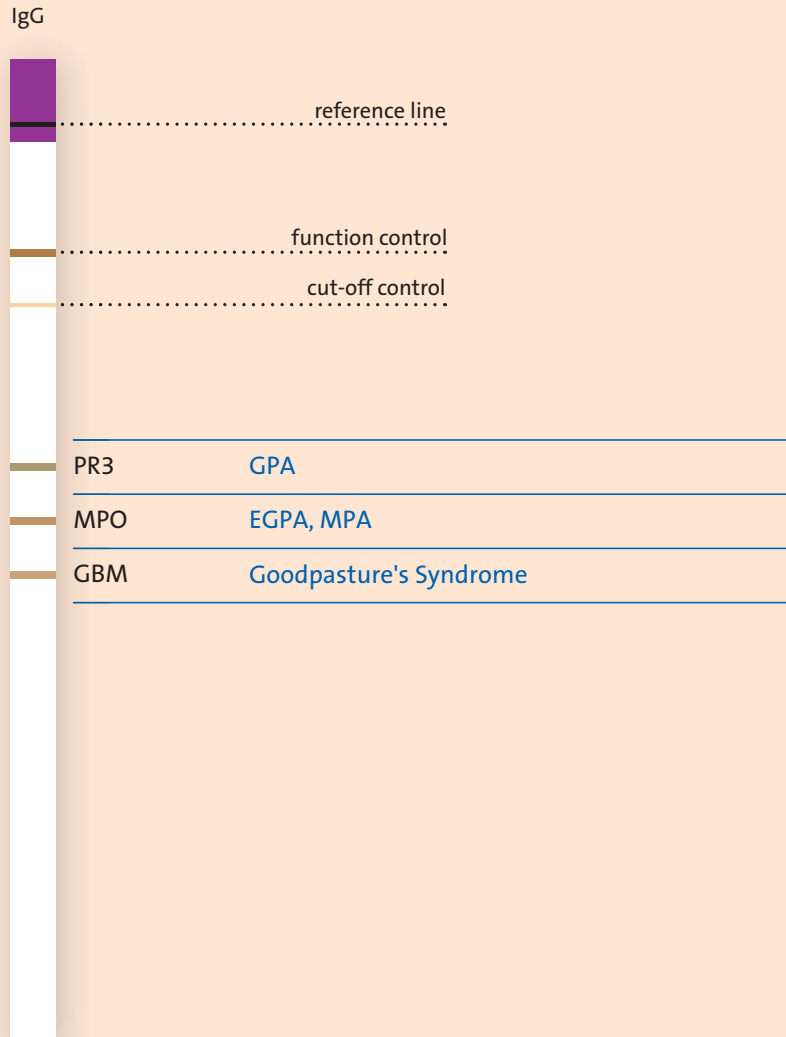




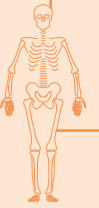
1.4 Vasculitis

Line Immuno Assay (LIA)

REF	Format	Unit / Size	Antigen	No. of Antigens	Calibration	Color Coding
Vasculitis-LIA Determination of vasculitis antibodies						
ITC82040	IgG	24	PR3, MPO and GBM	3	Qualitative, internal function and cut-off control	Purple



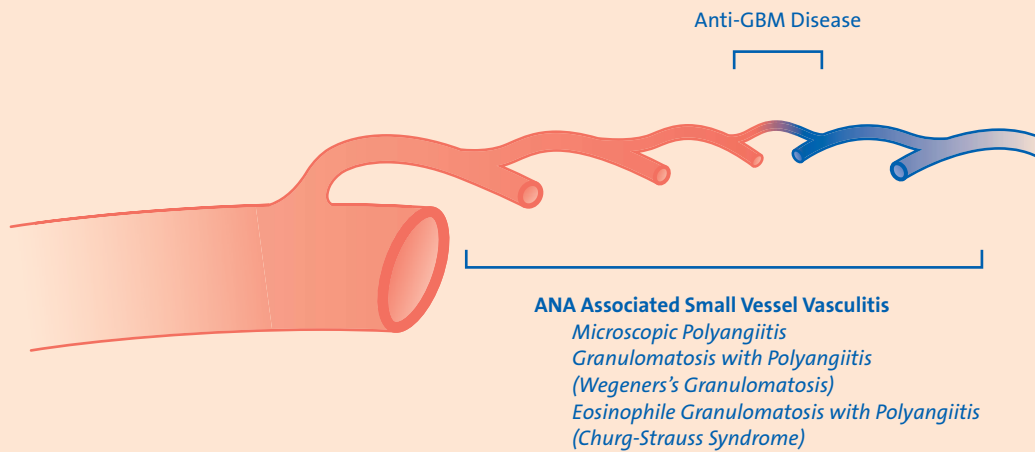
Line Immuno Assays

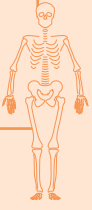


ELISA

REF	Format	Unit / Size	Antigen	Calibration	Cut-off
GBM-ANTIBODIES					
Determination of antibodies to glomerular basement membrane					
ITC82070	IgG	96	GBM	Quantitative, 2.5 / 7.4 / 22.2 / 66.7 / 200 U/ml	10 U/ml
MPO-ANCA					
Determination of antibodies to myeloperoxidase					
ITC82030	IgG	96	Myeloperoxidase	Quantitative, 2.5 / 7.4 / 22.2 / 66.7 / 200 U/ml	10 U/ml
PR3-ANCA					
Determination of antibodies to proteinase 3					
ITC82020	IgG	96	Proteinase 3	Quantitative, 2.5 / 7.4 / 22.2 / 66.7 / 200 U/ml	10 U/ml

Blood vessels targeted in various types of vasculitis





1.5 Antiphospholipid Syndrome

Clinical Characteristics

Antiphospholipid Syndrome (APS)

Venous and arterial thrombosis without inflammation of blood vessels

Symptoms

- One or more clinical episodes of arterial, venous or small vessel thrombosis
- One or more unexplained deaths of a morphologically normal fetus
- One or more premature births before week 34
- Three or more unexplained spontaneous abortions

Catastrophic Antiphospholipid Syndrome

Rare form of APS with extensive vascular occlusions in multiple organ systems

Symptoms

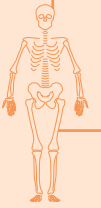
- Renal failure
- Malignant arterial hypertension
- Severe CNS manifestations
- Acrocyanosis
- Gangrene



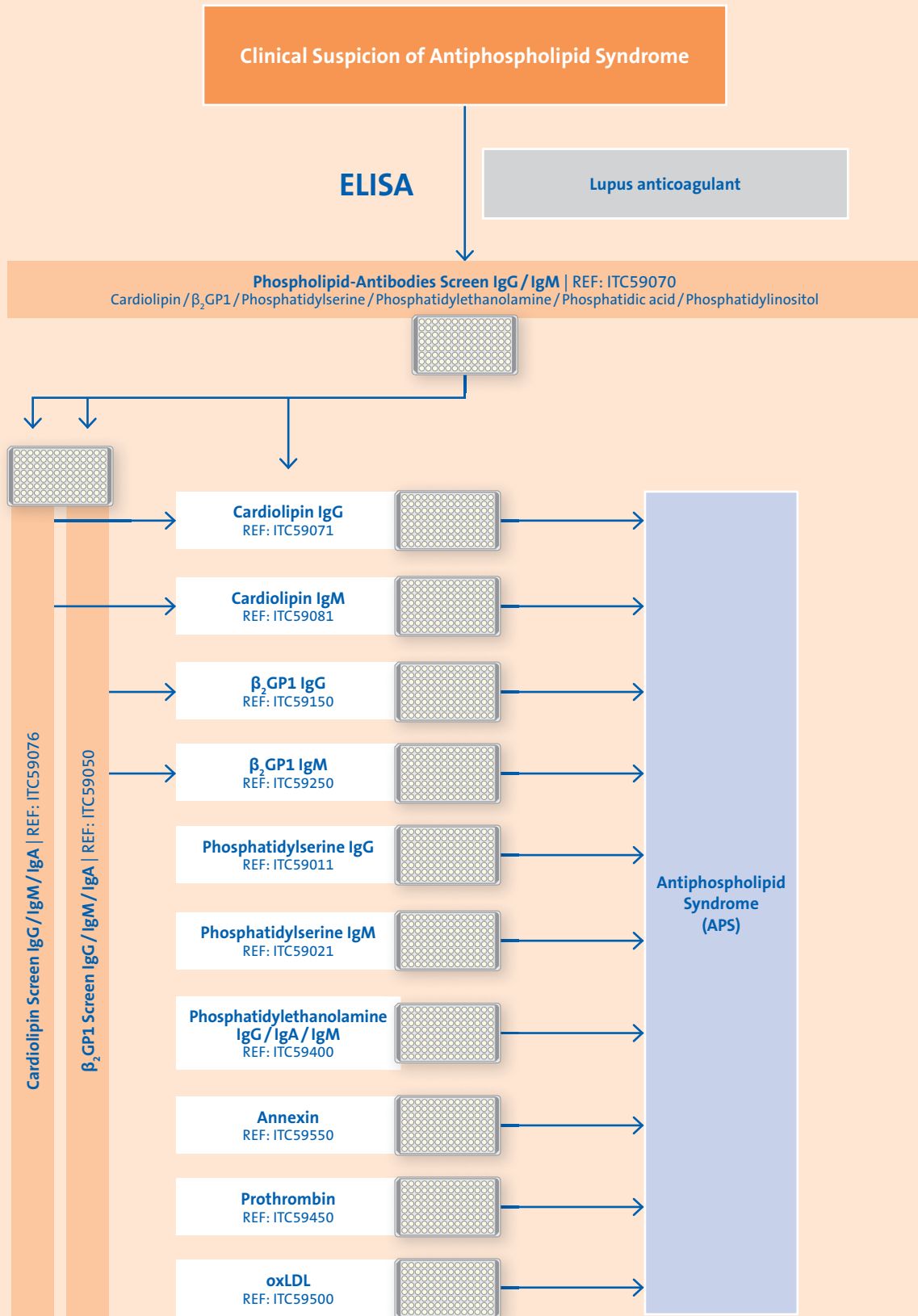
Antiphospholipid Syndrome



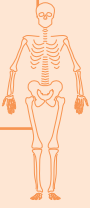
Diagnosis of APS



Diagnostic Options at a Glance



Repeat testing after 12 weeks



1.5 Antiphospholipid Syndrome

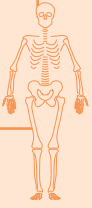
ELISA

REF	Format	Unit / Size	Antigen	Calibration	Cut-off
PHOSPHOLIPID-ANTIBODIES SCREEN					
Determination of antibodies to phospholipids					
ITC59070	IgG/IgM	96	Cardiolipin, β_2 GP1, Phosphatidylserine, Phosphatidylethanolamine, Phosphatidic acid, phosphatidylinositol	Quantitative, 6/12/25/50/100 U/ml	15–25 U/ml
ANNEXIN V-ANTIBODIES SCREEN					
Determination of antibodies to annexin V					
ITC59550	IgG/IgA/ IgM	96	Annexin V	Quantitative, 6.25/12.5/25/50/100 U/ml	25 U/ml
β_2-GLYCOPROTEIN 1-ANTIBODIES SCREEN					
Determination of antibodies to β_2 -Glycoprotein 1					
ITC59050	IgG/IgA/ IgM	96	β_2 GP1	Quantitative, 3.12/6.25/12.5/25/50/100 U/ml	5 U/ml
β_2-GLYCOPROTEIN 1-ANTIBODIES IgG					
Determination of antibodies to β_2 -Glycoprotein 1					
ITC59150	IgG	96	β_2 GP1	Quantitative, 4.7/9.4/18.8/37.5/75 ng/ml 6.25/12.5/25/50/100 U/ml	7 ng/ml
β_2-GLYCOPROTEIN 1-ANTIBODIES IgM					
Determination of antibodies to β_2 -Glycoprotein 1					
ITC59250	IgM	96	β_2 GP1	Quantitative, 4.7/9.4/18.8/37.5/75 ng/ml 6.25/12.5/25/50/100 U/ml	7 ng/ml
CARDIOLIPIN-ANTIBODIES SCREEN					
Determination of antibodies to cardiolipin					
ITC59076	IgG/IgA/ IgM	96	Cardiolipin + cofactor β_2 GP1	Quantitative, 31.25/62.5/125/250/500 U/ml	45 U/ml
CARDIOLIPIN-ANTIBODIES COMBI					
Determination of antibodies to cardiolipin					
ITC59082	IgG/IgM	96	Cardiolipin + cofactor β_2 GP1	Quantitative 31,25/62,5/125/250/500 U/ml	IgG: 48 U/ml IgM: 44 U/ml
CARDIOLIPIN-ANTIBODIES IgG					
Determination of antibodies to cardiolipin					
ITC59071	IgG	96	Cardiolipin + cofactor β_2 GP1	Quantitative, 6.5/13/26/52/104 GPL/ml	48 U/ml

ELISA



REF	Format	Unit / Size	Antigen	Calibration	Cut-off
CARDIOLIPIN-ANTIBODIES IgM					
Determination of antibodies to cardiolipin					
ITC59081	IgM	96	Cardiolipin + cofactor β_2 GP1	Quantitative, 31.3/62.5/125/250/500 U/ml	44 U/ml
oxLDL-ANTIBODIES Ig(GM)					
Determination of antibodies to oxidized low-density lipoproteins					
ITC59500	IgG/IgM	96	oxLDL	Quantitative, 12.5/25/50/100/200 U/ml	30 U/ml
PHOSPHATIDYLETHANOLAMINE-ANTIBODIES SCREEN					
Determination of antibodies to phosphatidylethanolamine					
ITC59400	IgG/IgA/IgM	96	Phosphatidyl-ethanolamine	Quantitative, 6.25/12.5/25/50/100 U/ml	15 U/ml
PHOSPHATIDYLSERINE-ANTIBODIES SCREEN					
Determination of antibodies to phosphatidylserine					
ITC59027	IgG/IgA/IgM	96	Phosphatidylserine + cofactor β_2 GP1	Quantitative, 6.25/12.5/25/50/100 U/ml	15 U/ml
PHOSPHATIDYLSERINE-ANTIBODIES IgG					
Determination of antibodies to phosphatidylserine					
ITC59011	IgG	96	Phosphatidylserine + cofactor β_2 GP1	Quantitative, 6.25/12.5/25/50/100 U/ml	15 U/ml
PHOSPHATIDYLSERINE-ANTIBODIES IgM					
Determination of antibodies to phosphatidylserine					
ITC59021	IgM	96	Phosphatidylserine + cofactor β_2 GP1	Quantitative, 6.25/12.5/25/50/100 U/ml	15 U/ml
PROTHROMBIN-ANTIBODIES SCREEN					
Determination of antibodies to prothrombin					
ITC59450	IgG/IgA/IgM	96	Prothrombin (factor II), phosphatidylserine	Quantitative, 6.25/12.5/25/50/100 U/ml	30 U/ml

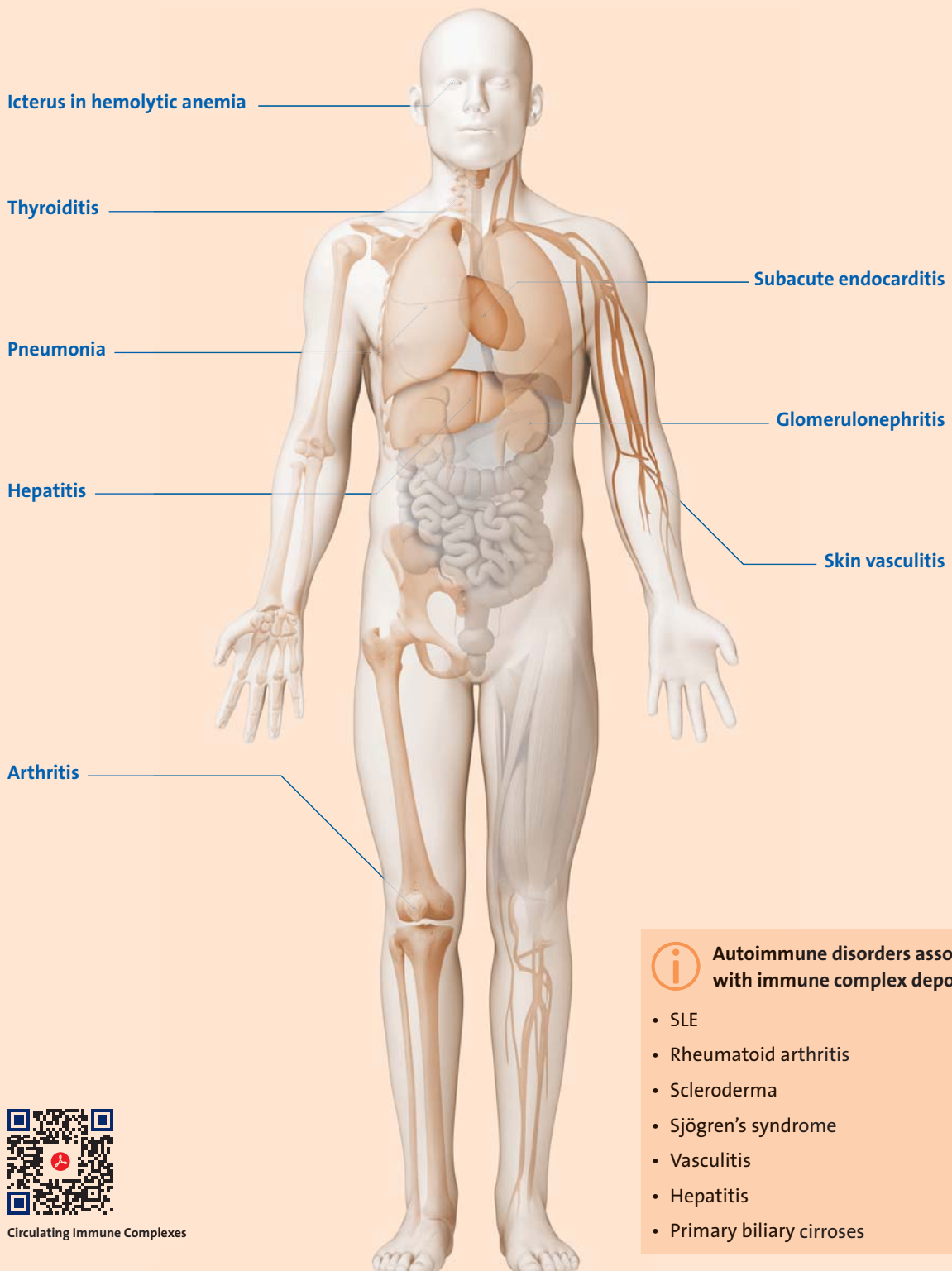


1.6 Circulating Immune Complexes

Clinical Characteristics

Deposition of Circulating Immune Complexes (CIC)

Deposition of antigen-antibody complexes that play a central role in pathogenesis of several autoimmune disorders



Autoimmune disorders associated with immune complex deposition

- SLE
- Rheumatoid arthritis
- Scleroderma
- Sjögren's syndrome
- Vasculitis
- Hepatitis
- Primary biliary cirroses



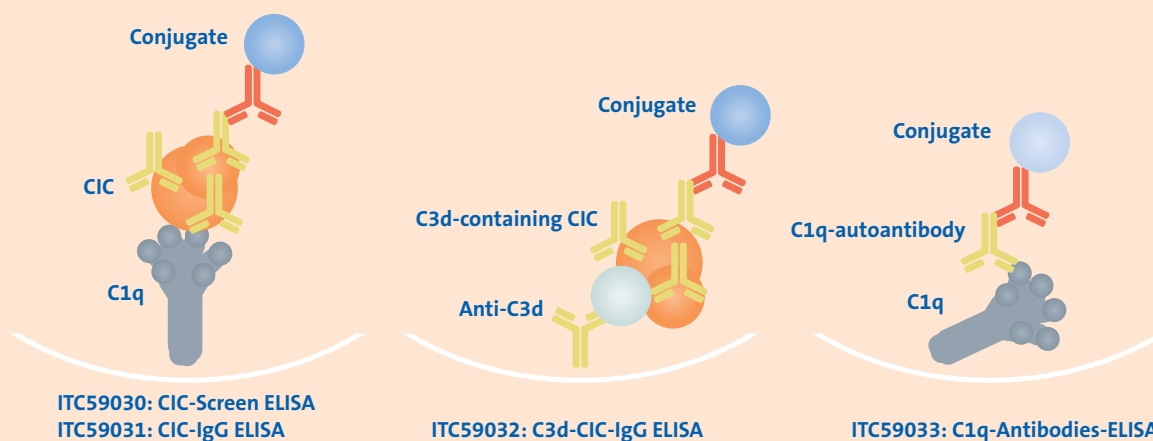
Circulating Immune Complexes

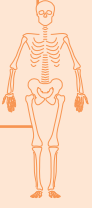


ELISA

REF	Format	Unit / Size	Acceptor	Calibration	Cut-off
CIC SCREEN (cut-off) Determination of antibodies to circulating immune complexes					
ITC59030	IgG/IgM	96	C1q-CIC	Qualitative	cut-off calibrator
CIC IgG Determination of antibodies to C1q circulating immune complexes					
ITC59031	IgG	96	C1q-CIC	Quantitative, 25 / 50 / 100 / 400 µg/ml	55 µg/ml
COMPLEMENT ACTIVITY Determination of complement activity					
ITC59035	IgG	96	IgM (complement activator)	Quantitative, 25 / 50 / 100 / 200 U/ml	normal range: 40–200 U/ml
C3d-CIC Determination of antibodies to C3d circulating immune complexes					
ITC59032	IgG	96	Anti-C3d-CIC	Quantitative, 25 / 50 / 100 / 200 µg/ml	40 µg/ml

Different ELISA tests targeting complement factor





1.7 Reactive Arthritis

Clinical Characteristics

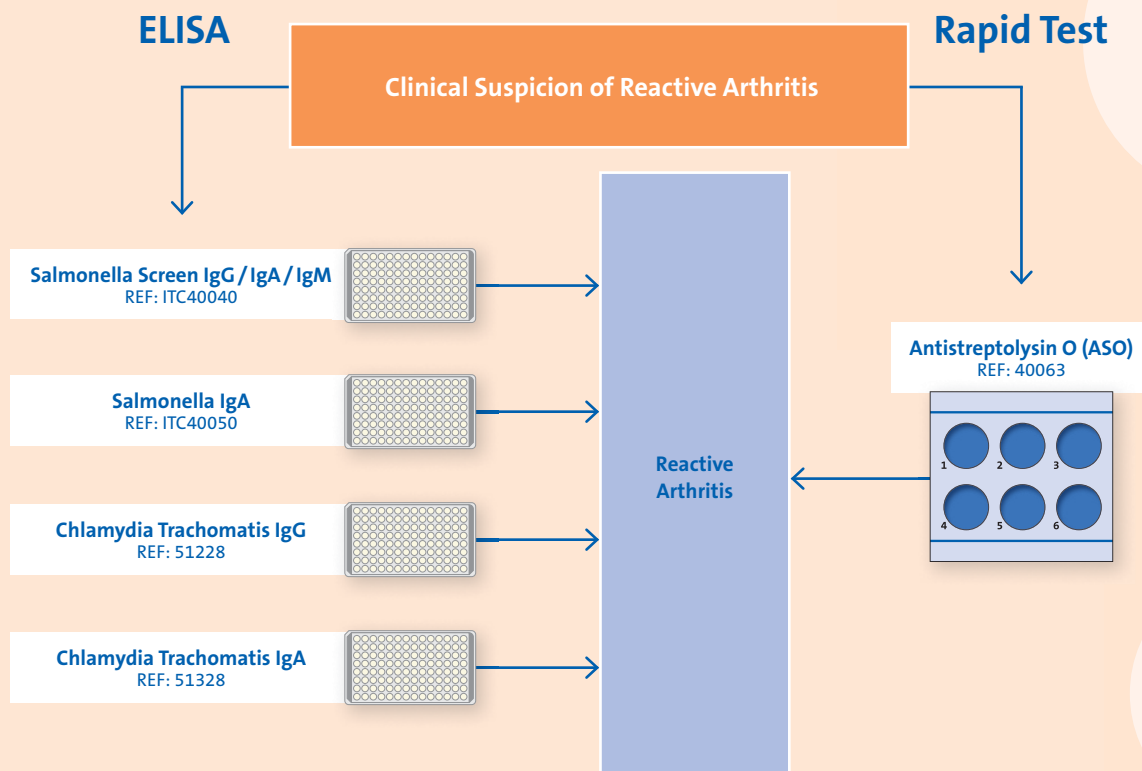
Reactive Arthritis

Autoinflammatory response triggered by bacterial infection

Symptoms

- Pain and swelling of certain joints, often the knees and/or ankles
- Swelling and pain at the heels
- Extensive swelling of the toes or fingers
- Persistent low back pain, that tends to be worse at night or in the morning
- Group of rheumatic joint diseases with an onset in childhood before 16 years of age
- Malaise
- Fatigue
- Fever

Diagnostic Options at a Glance





ELISA

REF	Format	Unit / Size	Antigen	Calibration	Cut-off
CHLAMYDIA TRACHOMATIS IgA Determination of antibodies to <i>Chlamydia trachomatis</i>					
51328	IgA	96	C. trachomatis	Qualitative	cut-off calibrator
CHLAMYDIA TRACHOMATIS IgG Determination of antibodies to <i>Chlamydia trachomatis</i>					
51228	IgG	96	C. trachomatis	Qualitative	cut-off calibrator
SALMONELLA-ANTIBODIES SCREEN (cut-off) Determination of antibodies to Salmonella					
ITC40040	IgG / IgA / IgM	96	LPS of <i>S. typhimurium</i> and <i>S. enteritidis</i>	Qualitative	cut-off calibrator
SALMONELLA-ANTIBODIES IgA (cut-off) Determination of antibodies to Salmonella					
ITC40050	IgA	96	LPS of <i>S. typhimurium</i> and <i>S. enteritidis</i>	Qualitative	cut-off calibrator

Rapid Screening Tests

REF	Format	Unit / Size	Antigen	Calibration	Cut-off
HumaTex ASO Latex slide test					
40062	Complete kit	40	Streptolysin O	Qualitative	200 IU/l Serum
40063		100			
40060		Latex reagent			
GLYCINE-NACl BUFFER Glycine-NaCl Buffer for sample dilution of latex slide tests					
40037	Buffer	100 ml			



Bacteria that may cause reactive arthritis

- Salmonella
- Chlamydia
- Campylobacter
- Shigella
- Yersinia
- Streptococcus



Anti-Salmonella

Hepatology

HUMAN's product line for autoimmune mediated liver diseases consists of both line immunoassays and ELISAs.

The IMTEC Liver-LIA provides for qualitative screening and complete differential diagnosis by detection of autoantibodies specific for autoimmune hepatitis (AIH) as well as primary biliary cirrhosis (PBC) and primary sclerosing cholangitis (PSC).

The product range is completed by ELISAs for the quantitative determination of AMA-M2, Sp100 and LKM-1 antibodies.



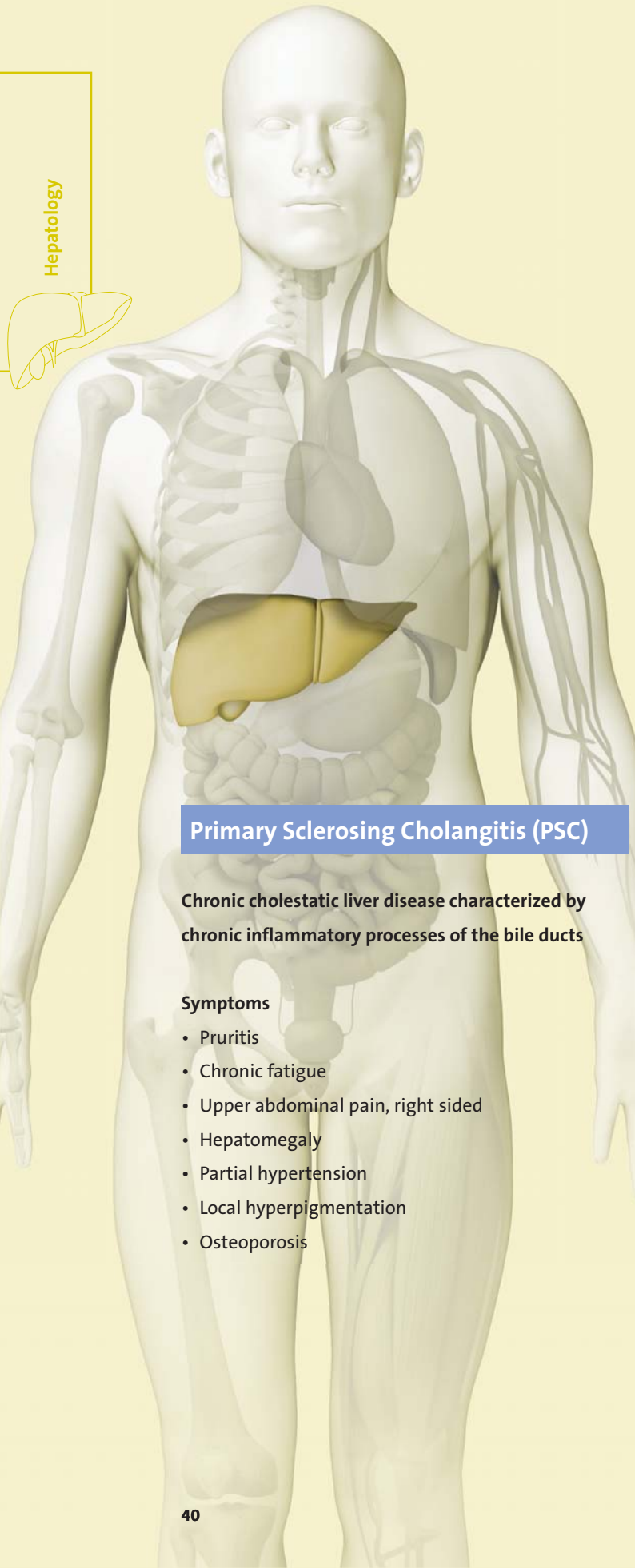
Autoimmune
Liver Disease



Anti-SLA Antibodies

2.0 Hepatology

Clinical Characteristics



Primary Billiary Cirrhosis (PBC)

Chronic cholestatic liver disease leading to liver cirrhosis

Symptoms

- Upper abdominal pain, right sided
- Pruritis
- Sicca symptoms
- Chronic fatigue
- Hepatomegaly
- Partial hypertension
- Local hyperpigmentation
- Osteoporosis

Primary Sclerosing Cholangitis (PSC)

Chronic cholestatic liver disease characterized by chronic inflammatory processes of the bile ducts

Symptoms

- Pruritis
- Chronic fatigue
- Upper abdominal pain, right sided
- Hepatomegaly
- Partial hypertension
- Local hyperpigmentation
- Osteoporosis

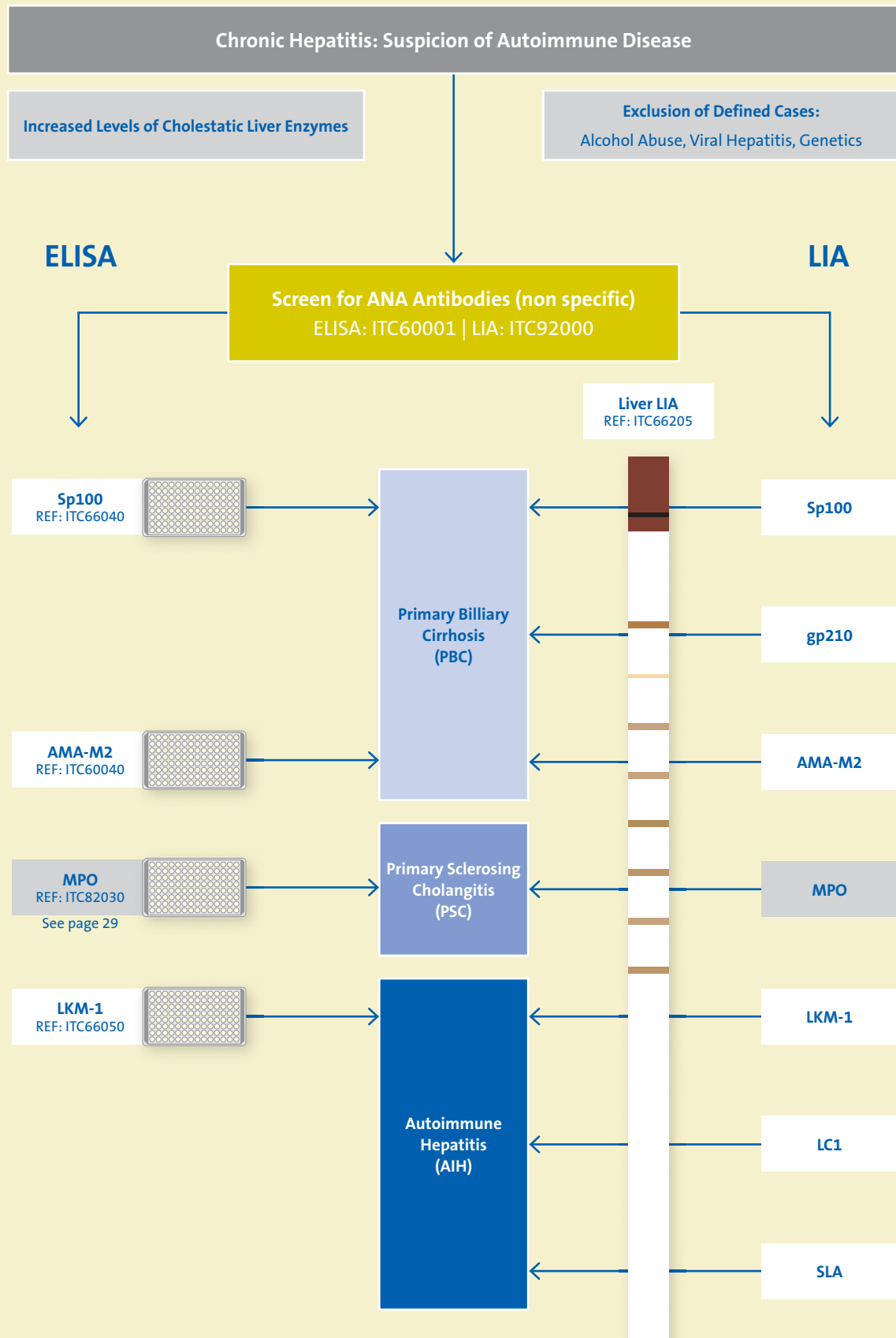
Autoimmune Hepatitis (AIH)

Chronic autoimmune hepatitis responsible for 10–20% of all chronic hepatitis cases with hepatocyte destruction and fibrosis

Symptoms

- Right-sided abdominal pain
- Chronic fatigue
- Jaundice
- Anorexia
- Fever

Diagnostic Options at a Glance



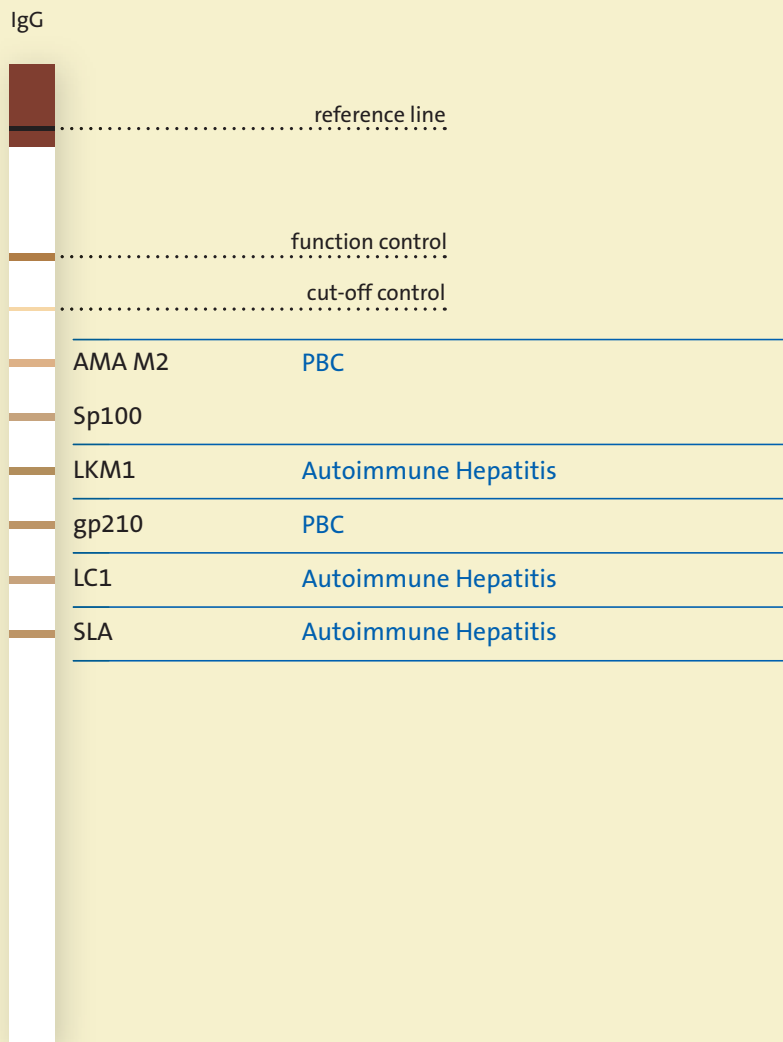
2.0 Hepatology

Line Immuno Assay (LIA)

Hepatology



REF	Format	Unit / Size	Antigen	No. of Antigens	Calibration	Color Coding
Liver-LIA						
Determination of antibodies to autoimmune liver diseases						
ITC66205	IgG	24	AMA M2, Sp100, LKM-1, gp210, LC1, SLA	6	Qualitative, internal function and cut-off control	Brown

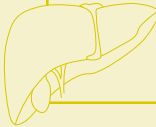


Line Immuno Assays

ELISA

REF	Format	Unit / Size	Antigen	Calibration	Cut-off
AMA M2 Determination of antibodies to anti-mitochondrial antigen M2					
ITC60040	IgG	96	AMA M2	Quantitative, 2/8/31/125/500 U/ml	10 U/ml
LKM-1-ANTIBODIES Determination of antibodies to liver-kidney microsomal antigen 1					
ITC66050	IgG	96	LKM-1 peptide	Quantitative, 12.5/25/50/100/200 U/ml	25 U/ml
Sp100-ANTIBODIES Determination of antibodies to Sp100					
ITC66040	IgG	96	Sp100	Quantitative, 8/40/200/1000 U/ml	20 U/ml

Hepatology



Gastroenterology

The IMTEC product line for the detection of autoimmune bowel diseases includes ELISAs for specific autoantibody markers for celiac disease, d-gliadin (DGP) and tissue transglutaminase (tTG).

The Gastro-LIA is used for the detection of IgA and IgG autoantibodies of autoimmune gastrointestinal diseases and carries 5 different antigens that help to identify autoantibodies in patients suffering from gastrointestinal autoimmune diseases (celiac disease, Crohn's disease and autoimmune gastritis). Anti-saccharomyces cerevisiae mannan antibodies (ASCA) are seen in Crohn's disease. Pernicious anemia can be detected by anti-parietal cell autoantibodies (PCA) and intrinsic factor (IF) autoantibodies.

3.0 Gastroenterology

Clinical Characteristics

Celiac Disease

Gluten triggered autoimmune mediated enteropathy

Symptoms

- Chronic diarrhea
- Abdominal pain
- Malabsorption syndrome: nutrients + vitamins
- Osteoporosis
- Dermatitis
- Neurological problems
- Weight loss
- Chronic fatigue
- Depression
- Reduced bone mineral density

Symptoms in children and adolescents

Malnourishment:

- Growth problems
- Weight loss
- Delayed puberty
- Depression

Crohn's Disease

Chronic inflammatory bowel disease.

Inflammation affects the whole gastro-intestinal tract from mouth to anus leading to stenosis, fistulas and abscesses

Symptoms

- Mucoïd diarrhea
- Recurrent abdominal pain, right lower abdomen
- Weight loss
- Mild fever

Pernicious Anemia – Vitamin B12 Deficiency Anemia

Disturbed reabsorption from the ileum in chronic inflammation (Crohn's disease).

Prevention of absorption by intrinsic factor antibodies

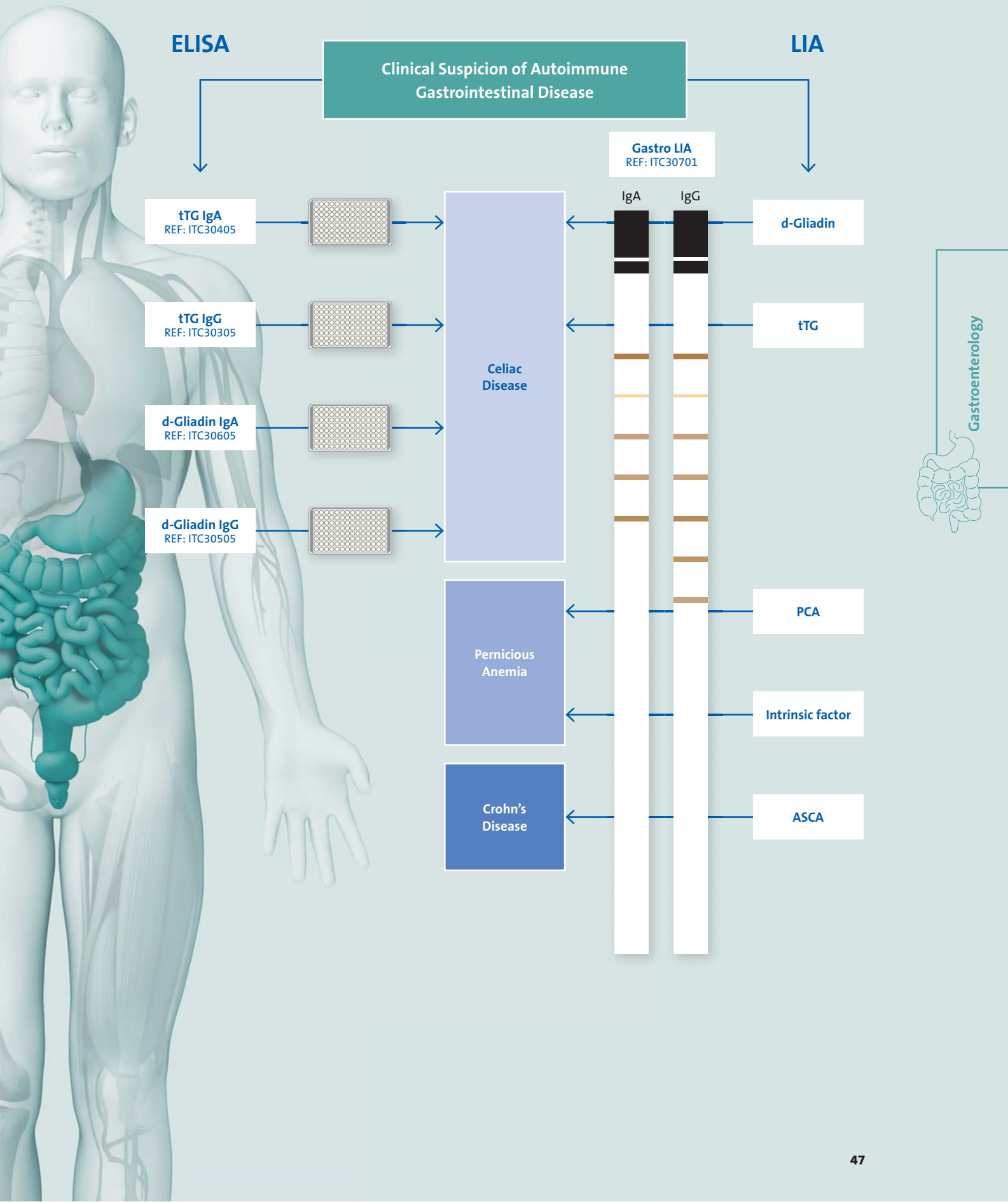
Failure of blood cells to mature due to vitamin B12 deficiency

Symptoms

- Diarrhea
- Fatigue
- Pallor (anemia)
- Polyneuropathy



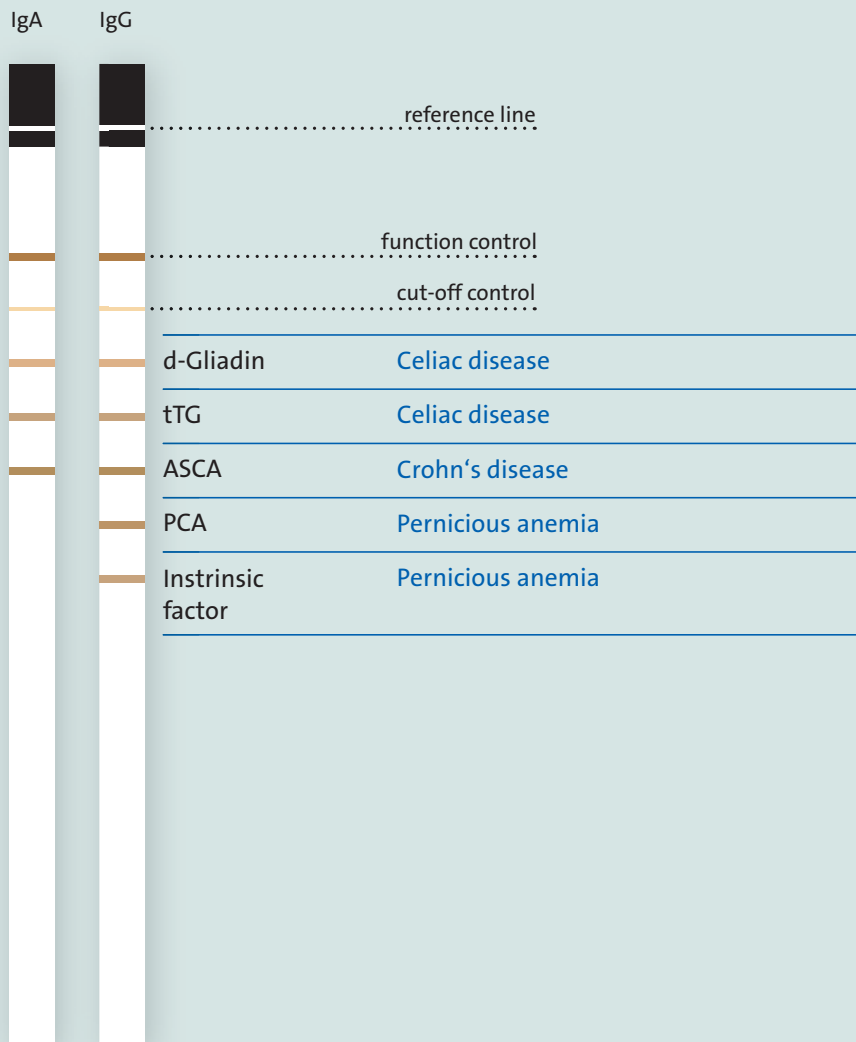
Diagnostic Options at a Glance



3.0 Gastroenterology

Line Immuno Assay (LIA)

REF	Format	Unit / Size	Antigen	No. of Antigens	Calibration	Color Coding
Gastro-LIA Determination of antibodies to gastro intestinal diseases						
ITC30701	IgG/IgA	24	d-Gliadin, Tissue trans-glutaminase, ASCA, PCA, Intrinsic factor	5	Qualitative, internal function and cut-off control	Black



Line Immuno Assays

ELISA

REF	Format	Unit / Size	Antigen	Calibration	Cut-off
d-GLIADIN-ANTIBODIES IgA					
Determination of antibodies to deamidated Gliadin					
ITC30605	IgA	96	d-Gliadin	Quantitative, 6.25/12.5/25/50/100 U/ml	10 U/ml
d-GLIADIN-ANTIBODIES IgG					
Determination of antibodies to deamidated Gliadin					
ITC30505	IgG	96	d-Gliadin	Quantitative, 6.25/12.5/25/50/100 U/ml	10 U/ml
t-TRANSGLUTAMINASE-ANTIBODIES IgA (distributed by HUMAN)					
Determination of antibodies to tissue transglutaminase					
ITC30405	IgA	96	Tissue transglutaminase	Quantitative, 0/10/20/50/100 U/ml	9–16 U/ml
t-TRANSGLUTAMINASE-ANTIBODIES IgG (distributed by HUMAN)					
Determination of antibodies to tissue transglutaminase					
ITC30305	IgG	96	Tissue transglutaminase	Quantitative, 2/10/20/50/100 U/ml	9–16 U/ml



Celiac disease frequently appears together with other autoimmune diseases

- Diabetes mellitus type 1
- Autoimmune thyroiditis
- Autoimmune polyglandular syndrome

Endocrinology

Autoimmune thyroid diseases (AITD) comprise two main clinical presentations: Graves' disease (GD) and Hashimoto's thyroiditis (HT). Both are characterized by lymphocytic infiltration of the thyroid parenchyma, constituting 30% of all autoaggressive diseases and therefore qualifying as organ-specific autoimmune diseases.

Beside the measurement of autoantibodies to TrAb, TG and TPO targeting thyroid gland epitopes, the diagnosis of AITDs is based on clinical signs, symptoms and blood test results that measure levels of thyroid hormones (fT3 and fT4) and thyroid-stimulating hormone (TSH) released by pituitary gland.



Thyroid Diagnosis

4.0 Endocrinology – Thyroid Disease

Clinical Characteristics

Autoimmune Hyperthyroidism – Graves' Disease

Autoimmune mediated thyroid hyperfunction

Symptoms

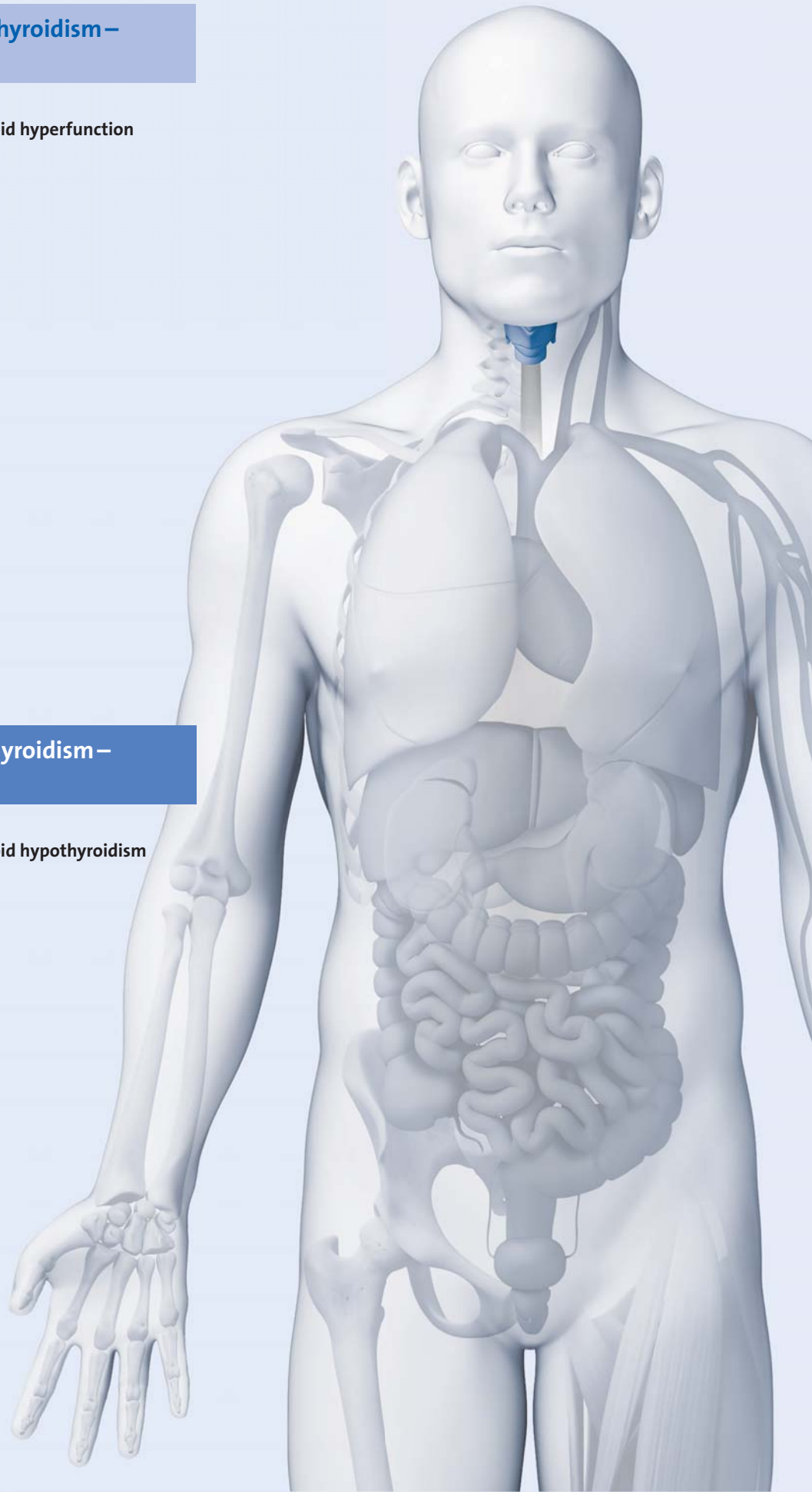
- Exophthalmos
- Struma
- Tachycardia
- Heart rhythm disturbances
- Nervousness
- Insomnia
- Rapid fatigue
- Sweating
- Heat sensitivity
- Hand tremor
- Exhaustion
- Diarrhea
- Weight loss
- Muscle and joint pain

Autoimmune Hypothyroidism – Hashimoto's Disease

Autoimmune mediated thyroid hypothyroidism

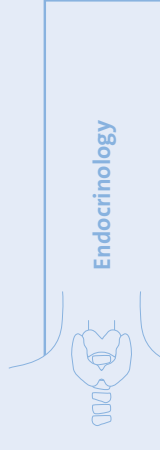
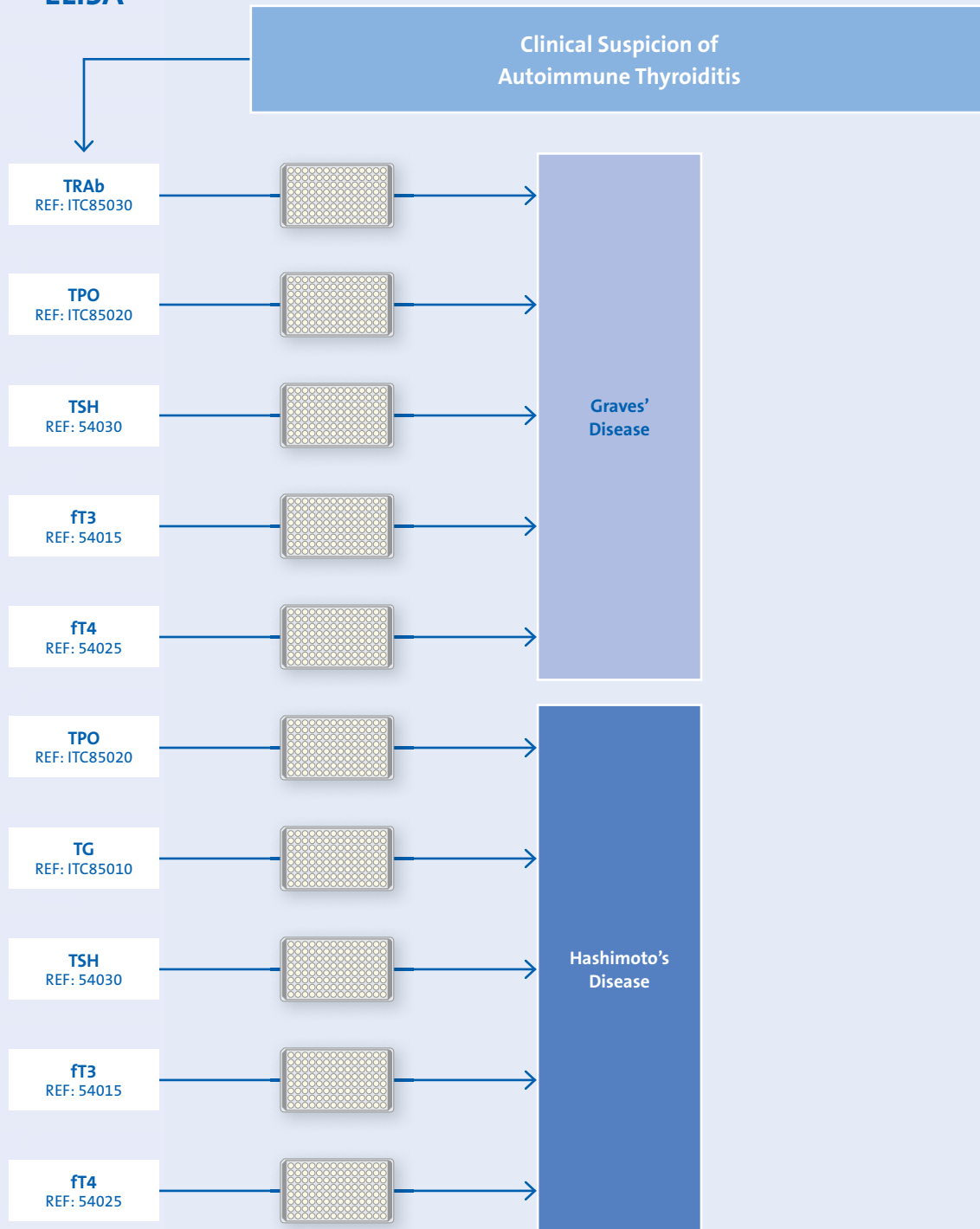
Symptoms

- Depression
- Fatigue
- Heat sensitivity
- Struma decreased
- Lack of concentration



Diagnostic Options at a Glance

ELISA



Clinical Relevance

Elevated or normal fT3 /fT4 and low TSH (< 0.1mU/ml)

< **Hyperthyroidism** >

Autoimmune Relevance

Anti-TSH-receptor-antibodies, anti-TPO-antibodies, low TSH

Elevated or normal TSH (> 4.5mU/ml) and low fT3 /fT4

< **Hypothyroidism** >

Anti-TG-antibodies, anti-TPO-antibodies, elevated TSH

4.0 Endocrinology – Thyroid Disease

ELISA

Detection of thyroid autoantibodies (anti-TPO, anti-TG and anti-TR antibodies)

REF	Format	Unit / Size	Antigen	Calibration	Cut-off
TG-ANTIBODIES					
Determination of antibodies to thyroglobulin					
ITC85010	IgG	96	Thyroglobulin	Quantitative, 15 / 60 / 240 / 960 / 3840 IU/ml	80–200 IU/ml
TPO-ANTIBODIES					
Determination of antibodies to thyroperoxidase					
ITC85020	IgG	96	Thyroperoxidase	Quantitative, 11.5 / 46 / 183 / 732 / 2930 IU/ml	80–150 U/ml
TSH RECEPTOR ANTIBODIES					
Determination of antibodies to TSH-receptor					
ITC85030		96	TSH-receptor	Quantitative, 1 / 2 / 8 / 40 U/ml	1.1–1.5 U/ml

Detection of thyroid hormones

REF	Format	Unit / Size	Antigen	Calibration
fT3 (FREE TRIIODOTHYRONINE)				
Determination of free Triiodothyronine				
54015		96	T3	Quantitative, 0 / 1 / 3 / 5 / 8 / 16 pg/ml
fT4 (FREE THYROXINE)				
Determination of free Thyroxine				
54025		96	T4	Quantitative, 0 / 0.40 / 1.25 / 2.10 / 5.00 / 7.40 ng/dl
TSH (THYROTROPIN)				
Determination of Thyrotropin				
54030		96	TSH	Quantitative, 0 / 0.5 / 3 / 6 / 15 / 30 mIU/l



Graves' disease frequently appears together with other autoimmune diseases

- Diabetes mellitus type1
- Autoimmune gastritis
- Addison's disease
- SLE
- Rheumatoid arthritis

Instruments & Analyzers

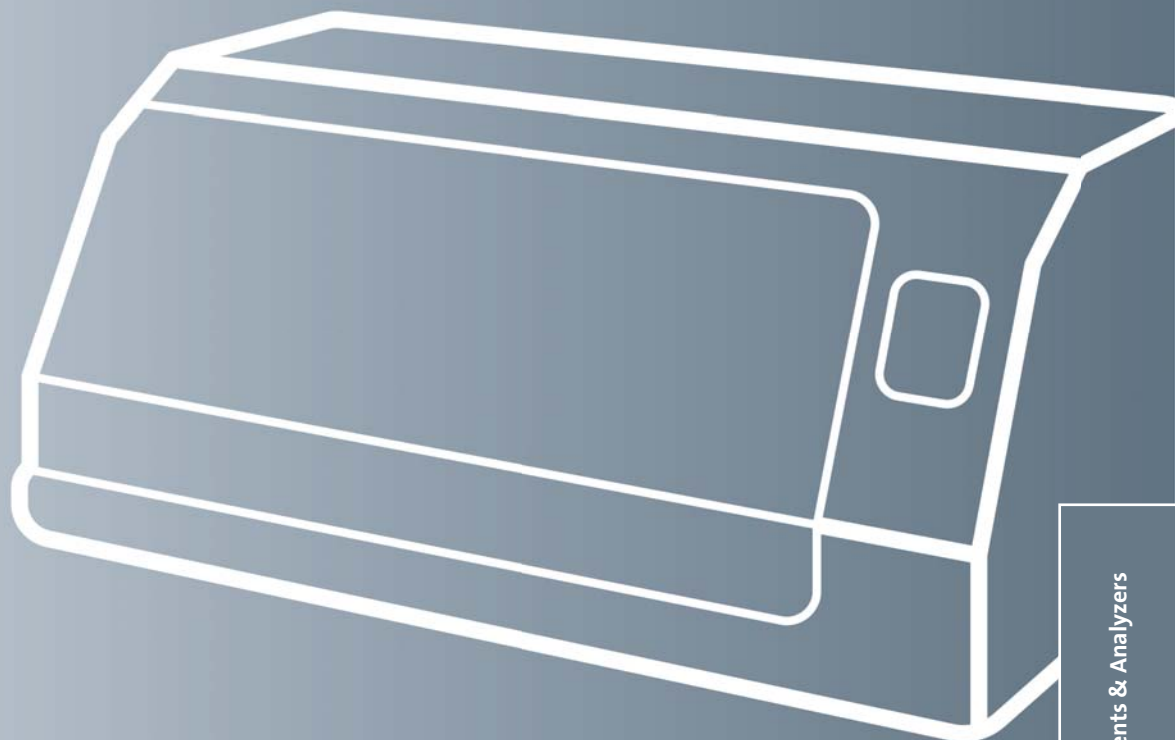
HUMAN's autoimmune product line is completed by devices for the automatic processing of ELISAs and line immuno assays.

Fully automated ELISA processing is available for 1, 2 or 4 plates with different test combinations on each plate. The combination of HumaReader Single plus or HumaReader HS together with the Combiwash workstation is designed for low throughput ELISA users. All HUMAN ELISAs are pre-programmed on HUMAN's analyzers, and additional applications can be added at any time.

The HumaScan software is designed for rapid, easy and objective interpretation of LIA results. HumaRock is the ideal device for manually processing line immuno assays.

The HumaScope Fluo^{LED} fluorescence microscope offers a maximum of flexibility.

With up to 4 different fluorescence channels it enables to work with many different fluorescence stainings.



5.1 Solutions for LIA

LIA Scan & Shaker

HumaScan Software CD + CanoScan LiDE 220 Scanner

Automated Analysis of Line Immuno Assays

The HumaScan software is designed for rapid, easy and objective interpretation of LIA results. The diagnostic report is generated in just a few minutes. Specific autoantibody bands are identified and displayed graphically in an intensity profile for a single patient summary as well as the complete report.

Objective band interpretation

- This sensitive system ensures objective and reproducible band interpretation.

Results in a few seconds

- From single test strip to high throughput screening
- HumaScan takes only seconds to create a complete patient report

Archival storage

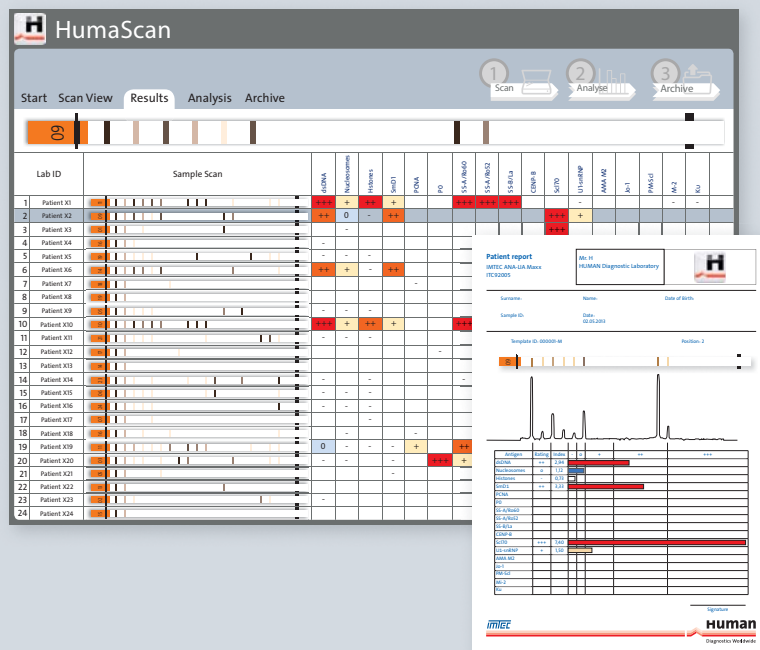
- Archive of total scans, single strips and patient results

HumaScan System Requirements	
OS	Windows 7, XP, Vista
Processor	Intel / AMD, 2.0 GHz
RAM	2 GB
Hard Drive	100 MB free space
Free USB	2x

REF	ITC02851
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HumaScan



HumaRock

Bench-top rocking shaker

- Tilt angle $\pm 7^\circ$
- Speed range 0–80 rpm
- Variety of plates and fixing clips
- Universal plug EU, UK, US included
- Maintenance-free brushless induction motor

REF	14570
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Laboratory Line

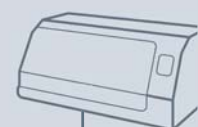


HumaRock with workplate LIA (optional accessory)

Accessories	
REF	Description
14570/10	Universal attachment with 3 bars
14570/12	Lengthways roller attachment
14570/13	Dish attachment with non-slip mat
14570/14	Bar universal attachment black
14570/20	Work plate Line Immuno Assay



Universal attachment with 3 bars



5.2 Solutions for ELISA

ELISA Instruments & Analyzers

The HUMAN ELISA line of instruments and analyzers offer unique solutions for all sizes of laboratories from low to high throughput. All instruments and analyzers come with the HUMAN Plug&Run capability, meaning that all HUMAN ELISA assays are pre-programmed and individually validated.

Single strip reader and high speed plate reader are designed for low throughput ELISA users.

- HumaReader Line (reader)
- Combiwasher (workstation)

Full automation is available for 1, 2 or 4 plates with different assay combinations on individual plates:

- Elisis Uno
- Elisis Duo
- Elisis Quattro

Workstation

With the Combiwash, HUMAN offers a unique workstation for the washing, shaking and incubation of microtiter plates. Flexible washing protocols can be programmed; shaking and incubation are freely definable.

REF	18460
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COMBIWASH

Automatic microtiter plate washer, shaker and incubator

- Up to 100 wash protocols
- 4 different wash bottles
- 2 incubator positions
- Plate shaking ability



Combiwash

Accessories

REF	Description
18460/5	12-pin Manifold
18460/26	110 VA Transformer

Readers

Single strip reader and high speed plate reader designed for low throughput ELISA users.

Both instruments are easy to use and provide reliable as well as fast results.

REF 18000



HumaReader Single plus

Microtiter strip reader

- Automatic strip transport (up to 3 strips)
- Photometer with automatic filter wheel
- HUMAN assays programmed (Plug&Run) and user programmable
- Curve and cut-off calculation
- Built-in printer
- 4 filter wheel 405, 450, 492, 630 nm installed

Accessories

REF	Description
18001	3 x 12 Well Boat
18144/5	Thermal Printer Paper (5 pcs)

REF 16670



HumaReader HS

HumaReader HS

Microtiter plate reader

- HUMAN assays programmed (Plug&Run) and user programmable
- Memory for 200 tests and 10.000 results
- Touchscreen, Windows software
- 8 filter wheel, 405, 450, 492, 630 nm installed

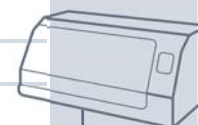
Accessories

REF	Description
16670/491	PC Mouse with USB
18993L	Laser Printer
16670/51	Filter Optical 412 nm*
16670/52	Filter Optical 420 nm*
16670/53	Filter Optical 490 nm*
16670/54	Filter Optical 505 nm*
16670/55	Filter Optical 520 nm*
16670/56	Filter Optical 540 nm*
16670/58	Filter Optical 545 nm*
16670/59	Filter Optical 546 nm*

Accessories

REF	Description
16670/57	Filter Optical 550 nm*
16670/63	Filter Optical 570 nm*
16670/60	Filter Optical 578 nm*
16670/62	Filter Optical 590 nm*
16670/61	Filter Optical 595 nm*
16670/67	Filter Optical 600 nm*
16670/65	Filter Optical 650 nm*
16670/66	Filter Optical 655 nm*

*Neutral Density Filters must be ordered separately!



Elisys Automated Analyzers

HUMAN's automated ELISA analyzers cover the requirements of small to large ELISA laboratories. Full automation is available for 1, 2 or 4 plates with different test combinations on each plate. All HUMAN ELISA tests are pre-programmed and validated, and additional applications can be added any time.

REF 17350



Elisys Uno

1-plate fully automated ELISA analyzer including UPS

- Open system, processing of one microtiter plate
- Up to 8 parameters simultaneously
- Time management system
- HUMAN assays programmed (plug & run) and user programmable
- 8 filter wheel: 405, 450 492, 630 nm installed



Elisys Uno

Accessories	
REF	Description
17359/1C	AID Predilution Rack
17359/10	Blood Bank Rack
17359/1B	Combined Dilution/Reagent Rack
17359/3	Reagent Rack Dengue & H. pylory
17359/4	Reagent Rack HIV & Hepatitis
17359/5	Reagent Rack Hormone
17359/2	Reagent Rack Infectious Diseases
17359/1	Reagent Rack Open Design
17359/7	Sample Rack 96 Round Sample (ø 12 mm)
17359/8	Sample Rack 96 Round Sample (ø 13 mm)
17353/9	Bottle Set (Wash, Waste, Rinse)
17353/6	Rinse Bottle 1 l with Plain Cap
17353/2	Rinse Bottle 1 l with Sensor Cap
17353/3	Wash Bottle 2 l with Sensor Cap
17353/7	Wash/Waste Bottle 2 l Plain Cap (1 pcs)
17353/8	Wash/Waste Bottle 2 l Plain Cap (3 pcs)
17353/4	Waste Bottle 2 l with Sensor Cap
18992P	Computer with Windows® OS
17901M	TFT Screen
18993L	Laser Printer

Consumables	
REF	Description
17350/B7	Reagent bottle 7ml (100 pcs)
17350/13	Reagent Bottle 15 ml (12 pcs)
17350/B25	Reagentbottle 25ml (70 pcs)
17350/14	Reagent Bottle 30 ml (12 pcs)
17350/B100	Reagentbottle 100ml (10 pcs)
17350/16	Sample Vials 2 ml (500 pcs)
17350/15	Sample Vial Caps (500 pcs)



REF 17200



Elisys Duo

2-plate fully automated ELISA analyzer including UPS

- Open system, up to 3 plates in one run
- Integrated PC and touchscreen
- Continuous loading of reagents, plates and samples
- Sample barcode reader
- HUMAN assays programmed (Plug&Run) and user programmable
- 8 filter wheel with 450 nm and 620 nm installed



Elisys Duo

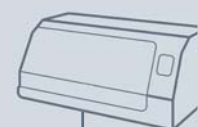


Movie

Accessories	
REF	Description
17200/30	Adapter 100 ml HUMAN Square Bottle
17200/31	Adapter Ring 15 ml closed (Set of 4)
17200/27	Adapter Ring 15 ml (Set of 6)
17200/28	Adapter Ring 2.5 ml (Set of 6)
17200/29	Adapter Ring 16 ml (Set of 6)
17200/139	Bottle Organizer Tray
17200/57	Filter Optical 405 nm
17200/55	Filter Optical 492 nm
17200/54	Filter Optical 532 nm
17200/58	Filter Optical 540 nm
17200/53	Filter Optical 550 nm
17200/59	Filter Optical 570 nm
17200/61	Filter Optical 610 nm
17200/50	Filter Optical 650 nm
17200/51	Filter Optical 690 nm
18993L	Laserprinter
17200/26	Rack 2 Position Square Bottle (3 Lanes)

Accessories	
REF	Description
17200/24	Rack Control
17200/25	Rack Reagent (2 Lanes)
17200/23	Rack Sample
17200/124	Square Bottle Cap
17200/125	Square Bottle, PP, 1l with Cap
17200/123	Square Bottle, PVC, 2l without Cap
17200/38	Washer Bottle 1l (Level Switch Red)
17200/39	Washer Bottle 2l (Level Switch Blue)

Consumables	
REF	Description
16300/10	300 µl Disposable Tips (10 x 96 pcs)
16300/11	1100 µl Disposable Tips (10 x 96 pcs)
17200/255	Deep Well Dilution Plate Square (40 pcs)
17200/137	Waste Bag with 'Biohazard' Label (10 pcs)
17350/B7	Reagent bottle 7ml (100 pcs)
17350/B25	Reagentbottle 25ml (70 pcs)
17350/B100	Reagentbottle 100ml (10 pcs)



REF 16300



Elisy Quattro

4-plate fully automated ELISA analyzer including UPS

- Open system, walk-away capability
- Up to 7 plates in one run, 4 independent incubators
- Continuous loading
- HUMAN assays programmed (Plug&Run) and user programmable



Elisy Quattro

Accessories	
REF	Description
16300/71	Cable RS232 PCSys / Analyzer
16300/196	Cap, Bottle 2l
17200/57	Filter Optical 405 nm
17200/55	Filter Optical 492 nm
17200/54	Filter Optical 532 nm
17200/58	Filter Optical 540 nm
17200/53	Filter Optical 550 nm
17200/59	Filter Optical 570 nm
17200/61	Filter Optical 610 nm
17200/50	Filter Optical 650 nm
17200/51	Filter Optical 690 nm
16300/102	Plate Carrier "A1"
16300/38	Reagent Rack 0
16300/40	Reagent Rack 2
16300/39	Reagent Rack II
16300/40-2	Reagent Rack R
16300/41	Sample Rack 20 Positions

Accessories	
REF	Description
16300/197	Square Bottle, 1l with Cap
16300/195	Square Bottle, PVC, 2l without Cap
16300/49	Washer Bottle 1l Black
16300/47	Washer Bottle 1l (Level Switch Red)
16300/43	Washer Bottle 2l (Level Switch Blue)
16300/45	Washer Bottle 2l (Level Switch Yellow)
18992P	Computer with Windows® OS
17901M	TFT Screen
18993L	Laserprinter

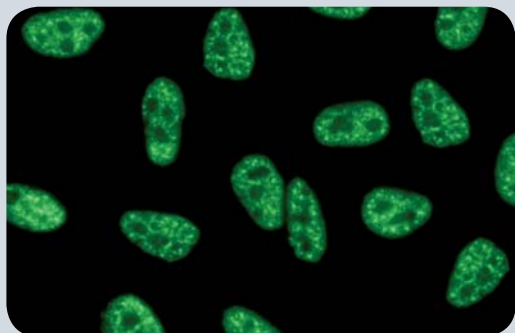
Consumables	
REF	Description
16300/10	300 µl Disposable Tips (10 x 96 pcs)
16300/11	1100 µl Disposable Tips (10 x 96 pcs)
18631	Dilution Cuvettes
16300/211	Waste Bag with "Biohazard" Label
17350/B7	Reagent bottle 7ml (100 pcs)
17350/B25	Reagentbottle 25ml (70 pcs)
17350/B100	Reagentbottle 100ml (10 pcs)



5.3 Solution for IFA

LED Fluorescence Microscope

The HumaScope FluorLED microscope combining bright field capabilities with multi-channel fluorescence, to make daily work and fluorescence imaging simple, fast, and accessible for every lab. The ergonomic LED microscope can be configured with up to 4 fluorescence LED channels to meet the specific requirements of flexible applications.



HumaScope Fluor^{LED}

LED Fluorescence microscope with trinocular head

- Infinity corrected plan achromatic objectives (antifungal coated) (4x, 10x, 40x and 100x oil)
- Compensation free Siedentopf head, inward 5-position objective revolver
- Koehler illumination
- Extra strong LED illumination, no replacement bulbs required
- Optional up to 4 fluorescence channels available
- Optional with rechargeable batteries



Movie



HumaScope Fluor LED

REF	Voltage	Features
-----	---------	----------

HumaScope Fluor ^{LED} State of the art optics		
14800	230/110 VAC	2-channel LED fluorescence (blue, green)
14804	230/110 VAC	2-channel LED fluorescence (blue, green) with rechargeable batteries
14801	230/110 VAC	3-channel LED fluorescence (blue, green, UV)
14802	230/110 VAC	3-channel LED fluorescence (blue, green, violett)
14803	230/110 VAC	4-channel LED fluorescence (blue, green, UV, violett)



A

- ACA** Anti-cardiolipin antibodies (see aCL)
- aCL** Anti-cardiolipin antibodies
- ACPA** Anti-citrullinated protein / peptide antibodies (see CCP)
- AKA** Anti-keratin antibodies
- AMA M2** Anti-mitochondrial antigen M2 (pyruvate dehydrogenase complex E2)
- ANA** Anti-nuclear antibodies
- ANCA** Anti-neutrophil cytoplasmic antibodies
- Annexin A5** see Annexin V
- Annexin V** Calcium-dependent phospholipid-binding protein outside vessel epithelial cells, prevents coagulation, 36 kDa
- aPL** Anti-phospholipid antibodies
- Apolipoprotein H** See β_2 GP1
- APS** Anti-phospholipid syndrome
- ASCA** Anti-saccharomyces cerevisiae antibodies
- ASO** Anti-streptolysin O antigen, 64 kDa

B

- β_2 GP1** β_2 -Glycoprotein
- beta₂-Glycoprotein 1** Lipid-binding glycoprotein of blood, 38 kDa

C

- C1q** Complement component 1q, receptor for modified immunoglobulins, protein oligomer, 400 kDa
- C3d** Complement component 3d, proteolytic product of complement component 3, associated with some kinds of CIC
- cANCA** Cytoplasmic ANCA (see PR3)
- Cardiolipin** Phospholipid
- CCP** Cyclic citrullinated peptide
- CIC** Circulating immune complex
- Centromere** Nuclear protein complex which links sister chromatids (see CENP-B)
- CENP-B** Centromere autoantigen B, part of centromere, 65 kDa
- CRP** C-reactive protein, inflammation biomarker, 25 kDa

D

- dsDNA** Double-stranded deoxyribonucleic acid
- d-Gliadin** Deamidated gliadin (see Gliadin)
- DGP** Deamidated gliadin peptide (see d-Gliadin)

E

- EMA** Endomysial antibodies (see tTG)
- ENA** Extractable nuclear antigens

G

- GBM** Glomerular basement membrane, the main autoantigen is type IV collagen
- Gliadin** Wheat protein, main component of gluten
- gp210** Glycoprotein of the nuclear pore, 210 kDa

H

- Histone** Basic proteins involved in DNA packaging, four forming the nucleosome (H2A, H2B, H3, H4), the fifth (H1) links nucleosomes
- hnRNP A2/B1** Heterogenous nuclear ribonucleoprotein A2/B1 (see RA33), associates with nascent pre-mRNAs, 37 kDa

I

- IF** see Intrinsic Factor
- Intrinsic Factor** Mucosal glycoprotein (gastric intrinsic factor, GIF) involved in vitamin B12 adsorption, 45 kDa

J

- Jo-1** Histidyl-tRNA synthetase, 47 kDa

K

- Ku70/Ku80** Complex of the proteins Ku70, Ku80, and DNA, involved in DNA repair, 70 kDa and 80 kDa, resp.

L

- La** see SS-B/La
- LBR** Laminin B receptor (LMN2R), protein of the nuclear membrane, 71 kDa
- LC1** Liver cytosol antigen 1 (formimidoyl-transferase cyclodeaminase, 59 kDa)
- LKM-1** Liver-kidney microsomal antigen 1 (cytochrome P450 2D6, 56 kDa)
- LPS** Lipopolysaccharides

M

- Mi-2** DNA/nucleosome-dependent helicase/ATPase, 240 kDa
- MPO** Myeloperoxidase (see pANCA)
- Myeloperoxidase** Enzyme expressed in neutrophil granulocytes (see MPO)

N

- Nucleosome** Chromatin structure, formed by a histone core surrounded by DNA

O

- oxLDL** Oxidized low-density lipoproteins

P

- P0** Ribosomal phosphoprotein P0 (see RPP), 34 kDa (isoform 1), 27 kDa (isoform 2)
- p70/p80** See Ku
- pANCA** Perinuclear antineutrophil cytoplasmic antigen (see MPO)
- PAP-1** See Annexin V
- PCA** Parietal cell antigen (gastric H⁺/K⁺-ATPase, 114 kDa)
- PCNA** Proliferating cell nuclear antigen, part of DNA polymerase delta, 29 kDa
- PL-7** Threonyl-tRNA synthetase (TARS), 83 kDa
- PL-12** Alanyl-tRNA synthetase (AARS), 116 kDa
- PM-Scl** Exosome component 10, involved in RNA degrading, 101 kDa
- Phosphatidylethanolamine** Phospholipid
- Phosphatidylserine** Phospholipid
- PR3** Proteinase 3 (see cANCA), serine protease, 28 kDa
- Proteinase 3** see PR3
- Prothrombin** Coagulation factor II, 70 kDa

R

- RA33** Rheumatoid arthritis antigen 33 kDa (see hnRNP A2/B1)
- RF** Rheumatoid factor (mainly IgM antibodies)
- Rheumatoid Factor** See RF
- Ro 52** see SS-A/Ro 52
- Ro 60** see SS-A/Ro 60
- RPP** Ribosomal phosphoprotein (see P0)

S

- Salmonella enterica** .. Rod-shaped, Gram-negative, flagellated enterobacteria
- Salmonella typhimurium** Subspecies of Salmonella enterica
- Scl70** DNA topoisomerase I, 91 kDa
- SLA/LP** Soluble liver antigen/liver pancreas antigen, selenocysteine synthetase, 50 kDa
- Sm** Smith antigen, polypeptide complex of the small nuclear ribonucleoprotein (see Smd1)
- SMA** Smooth muscle antigen (actin and non-actin components of cytoskeleton, see F-actin)
- Smd1** Smith antigen D1 (spliceosomal protein Smd1), 16 kDa
- Sp100** "Speckled pattern" nuclear protein, 53 kDa
- SS-A/Ro 60** Sjögren's syndrome antigen A: Ro, RNA-binding protein, 60 kD
- SS-A/Ro 52** Sjögren's syndrome antigen A: Ro, E3 ubiquitin-protein ligase TRIM21, 52 kD
- SS-B/La** Sjögren's syndrome antigen B: La, Lupus La protein, protects nascent RNA, 47 kDa
- ssDNA** single-stranded DNA

T

- TG** Thyroglobulin, 305 kDa
- TPO** Thyroid peroxidase, 103 kDa
- TRAb** TSH-R antibodies
- TRIM21** E3 ubiquitin-protein ligase TRIM21, see SS-A/Ro 52
- TSH-R** Thyroid-stimulating hormone receptor, thyrotropin receptor, 87 kDa
- tTG** Tissue transglutaminase 2, protein-glutamine gamma-glutamyltransferase 2, 77 kDa

U

- U1-snRNP** U1 small nuclear ribonucleoprotein particle
- U1-snRNP A** Protein A of the spliceosomal U1-snRNP, 31 kDa
- U1-snRNP C** Protein C of the spliceosomal U1-snRNP, 17 kDa
- U1-snRNP 68/70** Protein 68/70 of the spliceosomal U1-snRNP, 52 kDa

Proteindaten aus www.uniprot.org

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Info

Legal statement

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