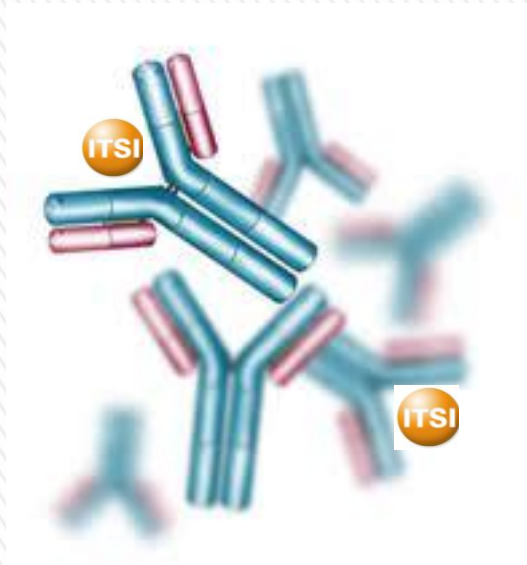




# AUTOANTIBODY PROFILING SYSTEM



- ✓ Detect
- ✓ Quantify
- ✓ Classify

## INTRODUCTION:

Autoantibodies are the class of antibodies that are produced by the immune system against an individual's own protein(s). More than 32 million Americans have autoantibodies. The production of autoantibodies may be due to genetic predisposition, hormones, therapeutic drugs or an environmental component including exposure to viruses and toxic chemicals. The presence of antibodies could be an indication of the presence, nature, and intensity of an immune response. In autoimmune disorders the immune response is part of the disease process. Thus, it is possible to use autoantibodies as markers of onset and progression of disease.

The presence of autoantibodies is associated with autoimmune disorders and literature suggests that the use of autoantibodies as a biomarker may enhance the sensitivity and specificity of early detection, diagnosis and monitoring of the progress of autoimmune disorders. In fact many studies have demonstrated that there is a direct relationship between the titer of the autoantibodies and the severity of autoimmune diseases.

## AUTOANTIBODY PROFILING SYSTEM:

The unique Autoantibody Profiling System (iAPS) is specifically developed for rapid identification, discovery and quantitation of multiple autoantibodies that may be present in experimental specimens. Considering that more than one autoantibody may be present, it is recommended to screen for multiple autoantibodies in each sample to have a better understanding of diseases associated with autoimmune disorders.

The profiling system consists of highly purified antigens that detect specific autoantibodies produced by the immune system against an individual's own proteins. It is presented in a 96-well microtiter plate format (Figure 1). The kit includes all reagents, Color Scoring Card and optional software. Only 240 minutes is required to screen for up to 90 autoantibodies.

The manufacturing process utilizes a unique blocking reagent and protocol that ensures high sensitivity and reproducibility. To increase experimental confidence, each plate has an internal standard for the generation of a standard curve, a positive and a negative control. The product is *easy-to-use* and no plate reader is required for qualitative and semi-quantitative assays.

There are two formats that allow you to detect multiple autoantibodies in a sample or search for a single autoantibody in many samples.

### KIT CONTENT:

- Probes for Autoantibodies.
- Probes for standard curve.
- Ready-to-use buffers.
- Blocking Reagent.
- Detection Antibody.
- Colorimetric Reagent.
- Quenching Reagent.
- Color Scoring Card.
- Software (Optional).



ITSIBIO APS is delivered in a Ready-to-Use format

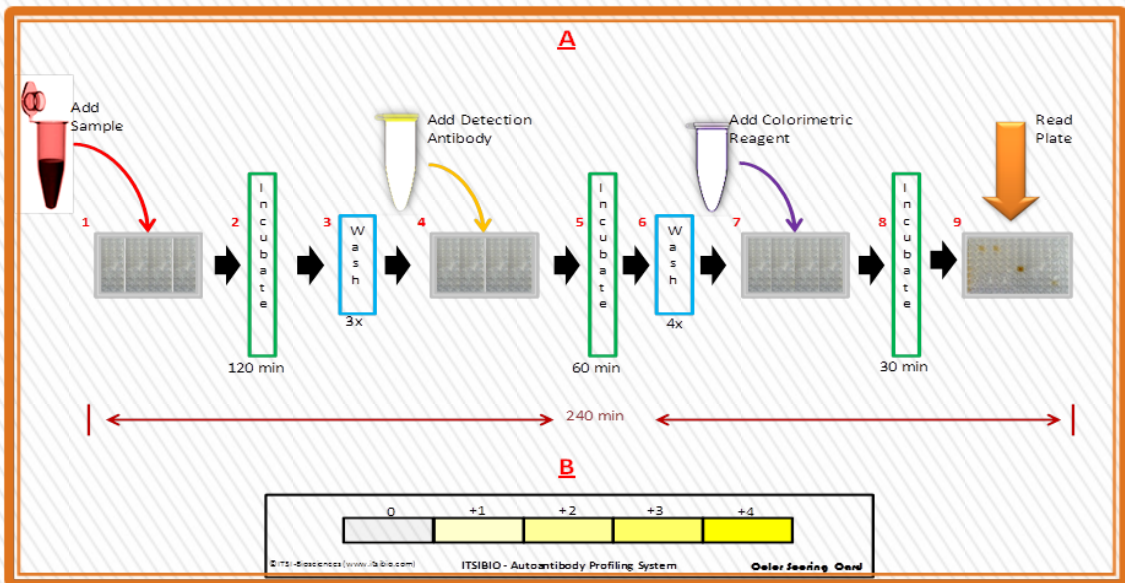
### DISEASES COVERED

- Allergy
- Arthritis
- Cardiovascular Disorder
- COPD
- Cancer
- Diabetes
- Irritable Bowel Syndrome
- Lupus

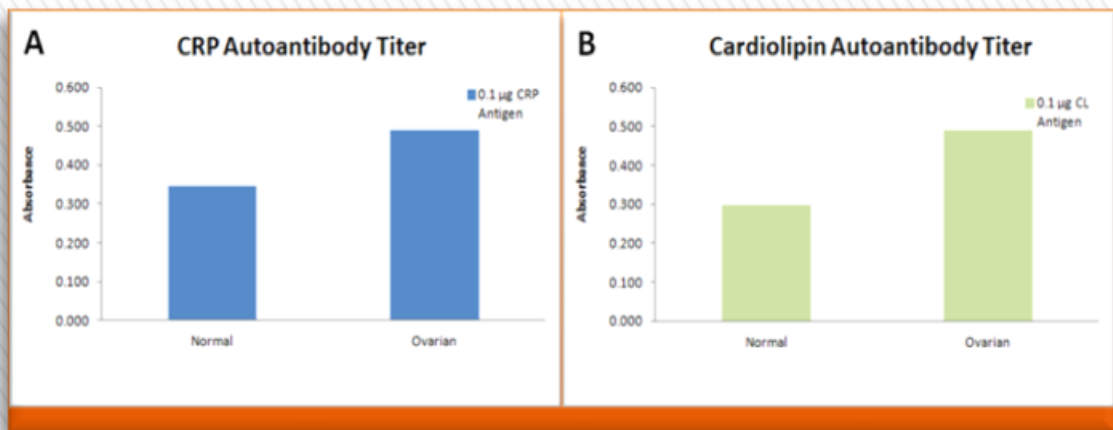
Detect

Quantify

Classify



**Fig 1:** The Autoantibody Profiling System (APS) allows the detection and quantitation of autoantibodies within 240 min using a simplified workflow process (A) and color scoring card (B). Plates are supplied in a ready to use format and no equipment is needed for qualitative assays.



**Fig 2:** CRP (A) and Cardioliipin (B) Autoantibody titer are higher in human female donors diagnosed with ovarian cancer compared to donors without ovarian cancer. Data shown is the average of 3 donors per arm.

Catalog No.	Name	Application
K-0046.1-90	Multiple autoantibody Profiling System	Identify multiple autoantibodies in a sample.
K-0046.1;.2;.3; etc	Single autoantibody profiling system	Identify a single autoantibody in multiple samples.

Detect

Quantify

Classify

**ALLERGY PANEL**

CATALOG #	ACC. #	TARGET
K0046.18	P22301	Interleukin 10
K0046.76	P60568	Interleukin 2
K0046.27	P05112	Interleukin 4
K0046.63	P05231	Interleukin 6
K0046.80	P01375	Tumor Necrosis Factor

**RHEUMATOID ARTHRITIS PANEL**

CATALOG #	ACC #	TARGET
K0046.55	P16410	Cytotoxic T-lymphocyte-associated Protein 4
K0046.18	P22301	Interleukin 10
K0046.76	P60568	Interleukin 2
K0046.25	P08700	Interleukin 3
K0046.27	P05112	Interleukin 4
K0046.63	P05231	Interleukin 6
K0046.64	P14174	Macrophage Migration Inhibitory Factor
K0046.31	P03956	Matrix Metalloproteinase-1
K0046.80	P01375	Tumor Necrosis Factor-alpha
K0046.79	Q9Y275	TNF-Related Apoptosis Inducing Ligand/Apo2L
K0046.49	Q02223	B-Cell Maturation Antigen
K0046.72	P15692	Vascular Endothelial Growth Factor A

**DIABETES PANEL**

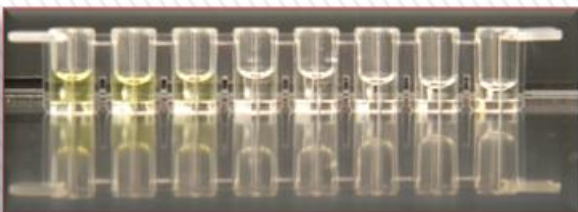
CATALOG #	ACC #	TARGET
K0046.47	Q15848	Adiponectin
K0046.81	P02647	Apolipoprotein
K0046.82	P01343	Insulin Like Growth Factor-1
K0046.68	Q9HD89	Resistin
K0046.80	P01375	Tumor Necrosis Factor-alpha
K0046.34	P02741	C-reactive protein, pentraxin-related
K0046.52	P35070	Betacellulin
K0046.66	P13500	Monocyte Chemotactic Protein-1/MCAF (CCL2)
K0046.55	P16410	Cytotoxic T-lymphocyte-associated Protein 4
K0046.86	Q6QBS2	Epidermal Growth Factor
K0046.87	P01275	Glucagon
K0046.63	P05231	Interleukin 6
K0046.89	P41159	leptin

**DIABETES PANEL CONT.**

K0046.72	P43490	Visfatin
K0046.72	P15692	Vascular Endothelial Growth Factor A
K0046.5	P55008	Allograft Inflammatory Factor 1
K0046.16	P01583	Interleukin 1, alpha
K0046.18	P22301	Interleukin 10
K0046.76	P60568	Interleukin 2
K0046.23	Q9HBE4	Interleukin 21
K0046.27	P05112	Interleukin 4
K0046.20	P29459	Interleukin 12A

**CARDIOVASCULAR PANEL**

CATALOG #	ACC #	TARGET
K0046.34	P02741	C-reactive Protein
K0046.63	P05231	Interleukin 6
K0046.81	P02647	Apolipoprotein A-1
K0046.18	P22301	Interleukin 10
K0046.27	P05112	Interleukin 4
K0046.80	P01375	Tumor Necrosis Factor
K0046.47	Q15848	Adiponectin
K0046.81	P02749	Apolipoprotein
K0046.35	P01258	ProCalcitonin
K0046.66	P13500	Monocyte Chemotactic Protein-1/MCAF (CCL2)
K0046.14	P09919	Granulocyte colony-stimulating factor
K0046.54	P29279	Connective Tissue Growth Factor
K0046.55	P16410	Cytotoxic T-lymphocyte-associated Protein 4
K0046.86	Q6QBS2	Epidermal Growth Factor
K0046.88	P01241	Growth Hormone 1
K0046.38	Q16661	ProUroguanylin
K0046.82	P01343	Insulin-like Growth Factor 1
K0046.17	P01583	Interleukin 1, Alpha
K0046.20	P29459	Interleukin 12a
K0046.76	P60568	Interleukin 2
K0046.3	P15248	Interleukin 9
K0046.89	P41159	Leptin
K0046.64	P14174	Macrophage Migration Inhibitory Factor
K0046.31	P03956	Matrix Metalloproteinase 1
K0046.51	P01138	Beta Nerve Growth Factor
K0046.72	P43490	Visfatin
K0046.37	P41222	Prostaglandin D2 Synthase
K0046.68	Q9HD89	Resistin
K0046.40	P40225	Thrombopoietin
K0046.77	O00300	Osteoprotegerin
K0046.2	P04637	Tumor Protein P53
K0046.42	P15692	Vascular Endothelial Growth Factor A



**Positive samples are visible to the eye as shown in the first three wells from the left**

Detect

Quantify

Classify

**LUPUS PANEL**

CATALOG #	ACC #	TARGET
K0046.81	P02749	Apolipoprotein
K0046.49	Q02223	B-Cell Maturation Antigen
K0046.55	P16410	Cytotoxic T-lymphocyte-associated Protein 4
K0046.16	P01583	Interleukin 1, alpha
K0046.18	P22301	Interleukin 10
K0046.27	P05112	Interleukin 4
K0046.63	P05231	Interleukin 6
K0046.64	P14174	Macrophage Migration Inhibitory Factor
K0046.66	P13500	Monocyte Chemotactic Protein-1/MCAF (CCL2)
K0046.78	P01236	Prolactin
K0046.79	Q9Y275	TNF-Related Apoptosis Inducing Ligand/Apo2L
K0046.80	P01375	Tumor Necrosis Factor-alpha

**COPD PANEL**

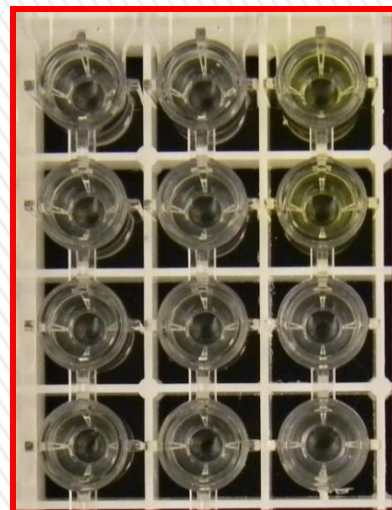
CATALOG #	ACC #	TARGET
K0046.50	P60022	Beta Defensin -1
K0046.18	P22301	Interleukin 10
K0046.19	P20809	Interleukin 11
K0046.27	P05112	Interleukin 4
K0046.63	P05231	Interleukin 6
K0046.31	P03956	Matrix Metalloproteinase-1
K0046.80	P01375	Tumor Necrosis Factor-alpha
K0046.2	P04637	p53 Mutant (a.a 135) Protein
K0046.72	P15692	Vascular Endothelial Growth Factor A

**IRRITABLE BOWEL SYNDROME PANEL**

CATALOG #	ACC #	TARGET
K0046.55	P16410	CT-LAP 4
K0046.18	P22301	Interleukin 10
K0046.80	P01375	Tumor Necrosis Factor-alpha
K0046.72	P15692	Vascular Endothelial Growth Factor A

**CANCER PANEL**

CATALOG #	ACC #	TARGET
K0046.34	P02741	C-reactive Protein
K0046.47	Q15848	Adiponectin
K0046.81	P02647	Apolipoprotein A-1
K0046.73	O15392	Survivin
K0046.35	P01258	ProCalcitonin
K0046.66	P13500	Monocyte Chemotactic Protein-1/MCAF (CCL2)
K0046.45	P42830	Epithelial Neutrophil-Activating Protein 78 (CXCL5)
K0046.30	P09603	Macrophage Colony Stimulating Factor
K0046.55	P16410	Cytotoxic T-lymphocyte-associated Protein 4
K0046.86	Q6QBS2	Epidermal Growth Factor
K0046.88	P01241	Growth Hormone 1
K0046.90	P01286	Growth Hormone Releasing Hormone
K0046.82	P01343	Insulin-like Growth Factor 1
K0046.16	P01583	Interleukin 1, Alpha
K0046.18	P22301	Interleukin 10
K0046.20	P29459	Interleukin 12a
K0046.76	P60568	Interleukin 2
K0046.24	Q13007	Interleukin 24
K0046.27	P05112	Interleukin 4
K0046.63	P05231	Interleukin 6
K0046.89	P41159	Leptin
K0046.31	P03956	Matrix Metalloproteinase 1
K0046.78	P01236	Prolactin
K0046.85	P01266	Thyroglobulin
K0046.80	P01375	Tumor Necrosis Factor
K0046.2	P04637	Tumor Protein P53
K0046.42	P15692	Vascular Endothelial Growth Factor A



Detect

Quantify

Classify

BREAST CANCER PANEL		
CATALOG #	ACC #	TARGET
K0046.55	P16410	CT-LAP 4
K0046.88	P01241	Growth Hormone 1
K0046.90	P01286	Growth Hormone Releasing Hormone
K0046.82	P01343	Insulin-like Growth Factor 1
K0046.16	P01583	Interleukin 1, Alpha
K0046.18	P22301	Interleukin 10
K0046.63	P05231	Interleukin 6
K0046.89	P41159	Leptin
K0046.31	P03956	Matrix Metalloproteinase 1
K0046.78	P01236	Prolactin
K0046.80	P01375	Tumor Necrosis Factor
K0046.2	P04637	Tumor Protein P53
K0046.42	P15692	Vascular Endothelial Growth Factor A

COLORECTAL CANCER PANEL		
CATALOG #	ACC #	TARGET
K0046.66	P13500	MCP-1/MCAF (CCL2)
K0046.45	P42830	ENAP - 78 (CXCL5)
K0046.55	P16410	CTL-A Protein 4
K0046.86	Q6QBS2	Epidermal Growth Factor
K0046.88	P01241	Growth Hormone 1
K0046.82	P01343	Insulin-like Growth Factor 1
K0046.18	P22301	Interleukin 10
K0046.20	P29459	Interleukin 12a
K0046.27	P05112	Interleukin 4
K0046.63	P05231	Interleukin 6
K0046.31	P03956	Matrix Metalloproteinase 1
K0046.80	P01375	Tumor Necrosis Factor
K0046.2	P04637	Tumor Protein P53
K0046.42	P15692	Vascular Endothelial Growth Factor A

STOMACH CANCER PANEL		
CATALOG #	ACC #	TARGET
K0046.86	Q6QBS2	Epidermal Growth Factor
K0046.16	P01583	Interleukin 1, Alpha
K0046.18	P22301	Interleukin 10
K0046.20	P29459	Interleukin 12
K0046.76	P60568	Interleukin 2
K0046.27	P05112	Interleukin 4
K0046.63	P05231	Interleukin 6
K0046.31	P03956	Matrix Metalloproteinase 1
K0046.80	P01375	Tumor Necrosis Factor
K0046.2	P04637	Tumor Protein P53
K0046.42	P15692	Vascular Endothelial Growth Factor A

OVARIAN CANCER PANEL		
CATALOG #	ACC #	TARGET
K0046.35	P01258	ProCalcitonin
K0046.16	P01583	Interleukin 1, Alpha
K0046.18	P22301	Interleukin 10
K0046.63	P05231	Interleukin 6
K0046.31	P03956	Matrix Metalloproteinase 1
K0046.2	P04637	Tumor Protein P53
K0046.42	P15692	Vascular Endothelial Growth Factor A

PROSTATE CANCER PANEL		
CATALOG #	ACC #	TARGET
K0046.82	P01343	Insulin-like Growth Factor 1
K0046.18	P22301	Interleukin 10
K0046.76	P60568	Interleukin 2
K0046.63	P05231	Interleukin 6
K0046.89	P41159	Leptin
K0046.78	P01236	Prolactin
K0046.80	P01375	Tumor Necrosis Factor
K0046.2	P04637	Tumor Protein P53
K0046.42	P15692	Vascular Endothelial Growth Factor A



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