



# Biomarkers

We bring the most advanced assays and testing methods to our pharmaceutical and biotechnology clients. Our comprehensive test menu includes markers of efficacy, exposure, response and susceptibility.

Targeting specific disease states and readily identifying clinical responses are of critical importance in clinical trials. At ICON Central Laboratories, our Scientific Affairs staff carefully reviews the latest professional literature and commercially available test kits to select methods with the greatest sensitivity and specificity. In addition, we work closely with sponsors facing special challenges, such as drug interference or specimen stability, to find quality solutions. Our scientists are recognized in the industry for their willingness to collaborate with study sponsors who need custom developed and validated assays for their clinical studies

As a global leader in providing central laboratory services, we utilize identical testing platforms and methods to ensure accurate, consistent test results and reference ranges.

This brochure lists our most frequently requested biomarkers. For more information about our custom assay development services or additional testing capabilities that may not appear in this listing, please contact your ICON Central Laboratories Business Development representative.

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Because ICON Central Laboratories is a global provider of central laboratory services and uses identical testing platforms and methods worldwide, we can assure study sponsors of accurate, consistent biomarker test results.

ICON Central Laboratories currently offers biomarkers for the following indications:

### Adrenal/Pituitary Disorders

#### BIOMARKER

ACTH  
Cortisol

#### ANALYTICAL METHOD(S)

Chemiluminescent Immunoassay  
Chemiluminescent Immunoassay

#### BIOMARKER

Human Growth Hormone

#### ANALYTICAL METHOD(S)

Chemiluminescent Immunoassay

### Autoimmune Disease

#### BIOMARKER

Amyloid A  
ANA  
ANCA  
Anticardiolipins  
Antimitochondrial Ab  
CCP  
CIC - C1Q  
ds DNA

#### ANALYTICAL METHOD(S)

ELISA  
IFA  
IFA  
ELISA  
ELISA  
ELISA  
ELISA  
ELISA

#### BIOMARKER

IL-2sR Alpha  
MMP 3  
RF  
RNp Ab  
Smooth Muscle Ab  
Sm RNp  
SS-A  
SS-B

#### ANALYTICAL METHOD(S)

ELISA  
ELISA  
Immunoturbidimetric  
ELISA  
ELISA  
ELISA  
ELISA  
ELISA

### Anemia

#### BIOMARKER

B12  
Erythropoietin  
Ferritin

#### ANALYTICAL METHOD(S)

Chemiluminescent Immunoassay  
Chemiluminescent Immunoassay  
Chemiluminescent Immunoassay

#### BIOMARKER

Folic Acid  
RBC Folate  
Transferrin

#### ANALYTICAL METHOD(S)

Chemiluminescent Immunoassay  
Chemiluminescent Immunoassay  
Chemiluminescent Immunoassay

### Bone Disease

#### BIOMARKER

Bone Specific Alkaline Phosphatase  
Calcitonin  
CTx  
CTx (Urine)  
DPD (Urine)  
Intact PTH  
NTx  
NTx (Urine)

#### ANALYTICAL METHOD(S)

EIA  
Chemiluminescent Immunoassay  
ELISA  
ELISA  
EIA  
Chemiluminescent Immunoassay  
ELISA  
ELISA

#### BIOMARKER

Osteocalcin  
Osteoprotegerin  
PINP  
Pyridinium Crosslinks, Urine  
TRACP-5B  
Vitamin D, 1,25 Dihydroxy  
Vitamin D, 25 Hydroxy

#### ANALYTICAL METHOD(S)

EIA  
EIA  
RIA  
EIA  
ELISA  
RIA  
Chemiluminescent Immunoassay, RIA

### Cardiac Markers

#### BIOMARKER

Apolipoprotein E  
BNP  
CKMB  
CRP Ultra Sensitive

#### ANALYTICAL METHOD(S)

PCR  
MEIA  
MEIA  
Immunoturbidimetric

#### BIOMARKER

Factor V Leiden  
Homocysteine  
Myoglobin  
Pro-BNP

#### ANALYTICAL METHOD(S)

PCR  
Chemiluminescent Immunoassay  
Chemiluminescent Immunoassay  
Electrochemiluminescence Immunoassay

### Hemostasis/Angiogenesis

#### BIOMARKER

Apc Resistance  
APTT  
Cell Adhesion Assays  
CH50  
D-DIMER  
Factor II Mutation  
Factor VII Activity  
Factor IX

#### ANALYTICAL METHOD(S)

Clotting Time  
Clotting Time  
R&D ELISA  
Immunoturbidimetric  
Latex Immunoassay  
PCR  
Clotting Time  
Clotting Time

#### BIOMARKER

FDP  
Fibrinogen  
PAI-1  
Protein C Activity  
Protein S Activity  
PT/INR  
Selectins  
Thrombin Antithrombin

#### ANALYTICAL METHOD(S)

Latex Agglutination  
Optical Clot  
ELISA  
Clotting Time  
Clotting Time  
Clotting Time  
R&D ELISA  
EIA

## Infectious Disease

### BIOMARKER

*Chlamydia trachomatis*  
 CMV IgM  
 CMV Total  
 EBV Quant.  
 EBV VCA IgG  
 EBV VCA IgM  
 HAV Ab IgM  
 HAV Ab Total  
 HB Core Ab IGM  
 HB Core Ab Total  
 HBeAb  
 HBsAb  
 HBsAg

### ANALYTICAL METHOD(S)

PCR/DNA Probe  
 MEIA  
 MEIA  
 PCR  
 ELISA  
 ELISA  
 MEIA  
 MEIA  
 Immunometric  
 Immunometric  
 EIA  
 Immunometric  
 Immunometric

### BIOMARKER

HBsAg Confirmatory  
 HBV DNA  
 HCV Ab  
 HCV Genotyping  
 HCV RIBA  
 HCV RNA  
 HIV  
 HIV DNA  
 HIV Genotyping  
 HIV RNA  
 Lyme Ab Screen  
*Neisseria gonorrhoeae*

### ANALYTICAL METHOD(S)

Immunometric  
 PCR  
 Immunometric  
 PCR  
 PCR  
 PCR  
 EIA  
 PCR  
 PCR  
 PCR  
 ELISA  
 PCR/DNA Probe

## Inflammation / Immune - Status / Cell Response

### BIOMARKER

Alpha-1 Antitrypsin  
 Alpha-1 Glycoprotein  
 C3  
 C4  
 CD Cell Markers  
 Ceruloplasmin  
 CRP Standard  
 E-Selectin  
 EGF  
 EGF Receptor  
 Endothelin-1  
 G-CSF  
 GM-CSF  
 HAMA  
 Haptoglobin  
 HB-EGF  
 Heterophile  
 HLA Genotype  
 IFN  
 IL-10

### ANALYTICAL METHOD(S)

Chemiluminescent Immunoassay  
 Immunoturbidimetric  
 Immunoturbidimetric  
 Immunoturbidimetric  
 Flow Cytometry  
 Immunoturbidimetric  
 Immunoturbidimetric  
 ELISA  
 ELISA  
 ELISA  
 ELISA  
 ELISA  
 ELISA  
 Nephelometric  
 ELISA  
 Agglutination  
 PCR  
 ELISA  
 ELISA

### BIOMARKER

IL-12  
 IL-13  
 IL-2  
 IL-4  
 IL-6  
 IL-8  
 Immunoglobulins IgG,A,M,E  
 MMP-3  
 Neopterin  
 Nitric Oxide  
 Noradrenalin  
 Prealbumin  
 Procalcitonin  
 Resistin  
 STNFR1  
 STNFR2  
 TGF-beta1  
 TNF-alpha  
 VCAM-1

### ANALYTICAL METHOD(S)

ELISA  
 ELISA  
 ELISA  
 ELISA  
 ELISA  
 ELISA  
 Immunoturbidimetric  
 ELISA  
 ELISA  
 ELISA  
 Immunoturbidimetric  
 Immunoturbidimetric  
 ELISA  
 ELISA  
 ELISA  
 ELISA  
 ELISA  
 ELISA

## Lipid Metabolism

### BIOMARKER

Apolipoprotein A1, A2, B, C3  
 Apolipoprotein E Genotyping  
 Free Fatty Acids  
 HDL Cholesterol

### ANALYTICAL METHOD(S)

Immunoturbidimetric  
 PCR  
 Colorimetric  
 Colorimetric

### BIOMARKER

LDL Cholesterol  
 Lp a  
 Lp-PLA2

### ANALYTICAL METHOD(S)

Colorimetric  
 Immunoturbidimetric  
 ELISA

## Metabolic Markers

### BIOMARKER

Adiponectin  
 C-Peptide  
 Fructosamine  
 GAD Antibodies  
 Ghrelin  
 Glucagon  
 GlycoMark  
 HbA1c

### ANALYTICAL METHOD(S)

RIA  
 RIA  
 Colorimetric  
 RIA  
 RIA  
 RIA  
 Enzymatic  
 HPLC

### BIOMARKER

HLA Typing  
 IA-2 Antibodies  
 IGF-1  
 Insulin  
 Leptin  
 Pancreatic Amylase  
 Proinsulin

### ANALYTICAL METHOD(S)

PCR  
 RIA  
 Chemiluminescent Immunoassay  
 Chemiluminescent Immunoassay  
 RIA  
 Immunokinetic Enzymatic  
 RIA

## Pulmonary Function

BIOMARKER	ANALYTICAL METHOD(S)
ECP	Chemiluminescent Immunoassay

## Renal Function

BIOMARKER	ANALYTICAL METHOD(S)	BIOMARKER	ANALYTICAL METHOD(S)
Aldosterone	RIA	GST-pi	EIA
Angiotenin II	RIA	Microalbumin	Immunoprecipitation
Beta-2 Microglobulin	Immunoturbidimetric	RBP	ELISA
GST-alpha	EIA	Renin	RIA

## Reproductive Endocrinology

BIOMARKER	ANALYTICAL METHOD(S)	BIOMARKER	ANALYTICAL METHOD(S)
Androstenedione	Chemiluminescent Immunoassay	Inhibin B	RIA
DHEA	RIA	LH	Chemiluminescent Immunoassay
DHEA SO4	Chemiluminescent Immunoassay	Progesterone	Chemiluminescent Immunoassay
DHEA-S	Chemiluminescent Immunoassay	Prolactin	Chemiluminescent Immunoassay
Estradiol	Chemiluminescent Immunoassay	SHBG	Chemiluminescent Immunoassay
Estradiol, Sensitive	RIA	Testosterone, Dihydro	RIA
Estrone	RIA	Testosterone, Free	RIA
FSH	Chemiluminescent Immunoassay	Testosterone, Total	RIA
hCG	MEIA	17-OH Progesterone	RIA

## Thyroid Function

BIOMARKER	ANALYTICAL METHOD(S)	BIOMARKER	ANALYTICAL METHOD(S)
Reverse T3	RIA	T4, Total	Chemiluminescent Immunoassay
T3 Uptake	Chemiluminescent Immunoassay	Thyroglobulin Antibodies	Chemiluminescent Immunoassay
T3, Free	Chemiluminescent Immunoassay	Thyroxine Binding Globulin	Chemiluminescent Immunoassay
T3, Total	Chemiluminescent Immunoassay	TPO Antibodies	Chemiluminescent Immunoassay
T4, Free	Chemiluminescent Immunoassay	TSH	Chemiluminescent Immunoassay

## Tumor Markers

BIOMARKER	ANALYTICAL METHOD(S)	BIOMARKER	ANALYTICAL METHOD(S)
AFP	Chemiluminescent Immunoassay	CEA	Chemiluminescent Immunoassay
CA 125	Chemiluminescent Immunoassay	NSE	ELISA
CA15-3	Chemiluminescent Immunoassay	PAP	Chemiluminescent Immunoassay
CA19-9	Chemiluminescent Immunoassay	PSA	Chemiluminescent Immunoassay
Cathepsin B	ELISA	Serotonin	RIA

For more information regarding biomarkers or other central laboratory services, visit [www.iconplc.com](http://www.iconplc.com), or email us at [labinfo@iconplc.com](mailto:labinfo@iconplc.com).



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