



# 2017 Product Catalogue

## Research Products on ImmunoMetabolism

- Highly sensitive ELISA Kits
  - Well validated antibodies
    - Bioactive hormones and cytokines
      - For Research use Only

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#### **About Us**

- ◆ImmunoDiagnostics Limited (IMD) is a spin-off biotech company from the Antibody and Immunoassay Services (AIS, <a href="www.antibody.hku.hk">www.antibody.hku.hk</a>), The University of Hong Kong.
- ♦ The company focuses on ImmunoMetabolism, an emerging field which studies interplay between *immunological and metabolic processes*, and has developed a wild range of products related to this area.
- ◆ By far, our products have been intensively applied in both basic and clinical studies worldwide and have been frequently cited in numerous publications with high impact factors.

### **Hormonal Immunoassays**

Insulin Series hot (human/mouse/rat) (wide range/high sensitive/ultra sensitive)	1
FGF21 (human/mouse/rat)	2
Adiponectin (human/mouse/rat)	3
FABP4/A-FABP (human/mouse)	4
Lipocalin-2/NGAL (human/mouse)	5

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## **Bioactive Hormones and Cytokines**

Hormones, Growth Factors and Cardiometabolic Biomol

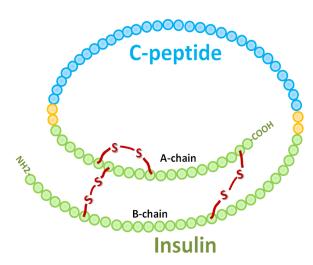
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# Insulin and C-peptide ELISA Kits

- ◆ Insulin is a peptide hormone exclusively produced in pancreatic betacells. It consists of a 21-amino acid A chain and a 30-amino acid B chain, which are linked by two disulfide bridges.
- ◆ Insulin is the primary hormone responsible for glucose metabolism. Impaired insulin secretion and insulin resistance are key causes of type 2 diabetes (T2D).
- ◆ During the maturation of insulin, C-peptide, a short 31-amino acid polypeptide that connects the A chain and B chain of insulin, is digested from the proinsulin molecule.
- ◆ In diabetes and other metabolic disorders, serum C-peptide levels can be used for distinguishing endogenous insulin secretion level from exogenous insulin due to pharmaceutical interventions.
- ◆ ImmunoDiagnostics has developed a series of insulin-related ELISA kits with various assay ranges and comparable performance to leading commercial kits in current market.



#### Human/ Mouse / Rat Insulin ELISA Kits

- Based on highly specific monoclonal antibodies
- Rapid procedures: the whole process takes only 90 mins.
- Small sample volume
- Simplified operation (one step)

#### Mouse / Rat C-peptide ELISA Kits

- Based on highly specific monoclonal antibodies
- Small sample volume
- Simplified operation

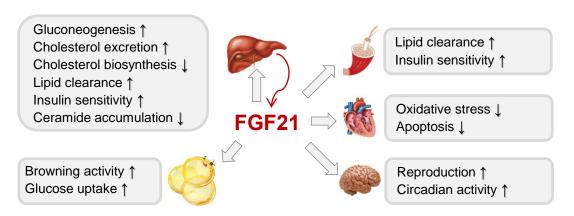
Insulin ELISA Kits	Assay Range	Cat No.
Human Insulin	3 -120 µIU/ml	31380
Wide range mouse Insulin	1 -50 ng/ml	32100
Wide range rat Insulin	1 -50 ng/ml	33100
High sensitive mouse Insulin	0.2 -7 ng/ml	32270
High sensitive rat Insulin	0.2 -7 ng/ml	33270
Ultra sensitive mouse Insulin	0.025-1.5 ng/ml	32380
Ultra sensitive rat Insulin	0.025-1.5 ng/ml	33380

C-peptide ELISA Kits	Assay Range	Cat No.
Mouse c-peptide	0.15 to 2.5 ng/ml	32780
Rat c-peptide	0.15 to 2.5 ng/ml	33780



## **Fibroblast Growth Factor 21 (FGF21)**

- ◆ FGF21 is a metabolic hormone mainly produced in liver. It regulates glucose and lipid metabolism through pleiotropic actions in multiple tissues, and protects against metabolic damages under various stresses.
- ♦ In humans, high circulating FGF21 levels are found in obesity and multiple cardiometabolic disorders, including metabolic syndrome, type 2 diabetes, non-alcoholic fatty liver disease and coronary artery disease. Serum FGF21 is a potential biomarker for the early detection and risk prediction of these diseases.



◆ ImmunoDiagnostics has developed a wide range of FGF21-related products for research use, including:

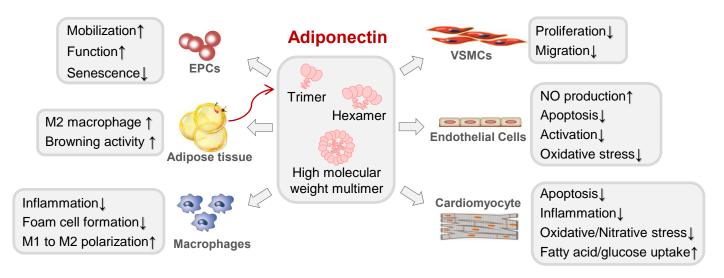
Bioactive proteins and antibodies	Cat No.
Recombinant FGF21 (Human)	41189
Recombinant FGF21 (Mouse)	42189
Anti-FGF21 pAb (Human)	11180
Anti-FGF21 pAb (Mouse)	12180

ELISA Kits	Assay Range	Cat No.
Human FGF-21	30-1920 pg/ml	31180
Mouse/Rat FGF-21	31.2-2000 pg/ml	32180



## **Adiponectin**

- ◆ Adiponectin is an adipokine exclusively expressed in adipose tissues with potent anti-diabetic, antiatherogenic and anti-inflammatory functions.
- ◆ In humans, decreased serum adiponectin levels are associated with increased body mass index (BMI), decreased insulin sensitivity, less favourable plasma lipid profiles, increased inflammation and increased risk for the development of type 2 diabetes, hypertension and coronary heart diseases.



◆ ImmunoDiagnostics has developed a series of adiponectin-related products, which have been used globally for over a decade:

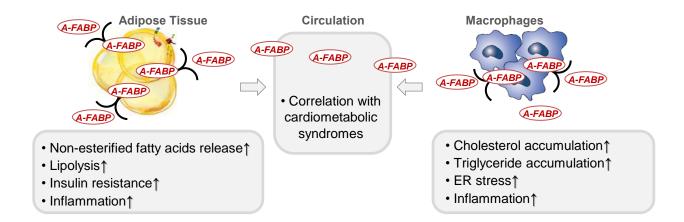
Bioactive proteins and antibodies	Cat No.
Recombinant Adiponectin (Human)	41013
Recombinant Adiponectin (Mouse)	42011
Anti-Adiponectin MAb (Human), clone Ha6	21010
Anti-Adiponectin MAb (Human), clone Ha7	21011
Anti-Adiponectin pAb (Human)	11010
Anti-Adiponectin pAb (Mouse)	12010

ELISA Kits	Assay Range	Cat No.
Human Adiponectin	1.55-100 ng/ml	31010
Rapid Human Adiponectin	7.8-500 ng/ml	31012
Mouse/Rat Adiponectin	3.12-200 ng/ml	32010
Immunoturbidimetric (ITA) Assay	Assay Range	Cat No.
Human Adiponectin	0 - 40 μg/mL	51010



# Fatty Acid Binding Protein 4 (FABP-4/A-FABP)

- ◆ FABP-4, also termed adipocyte fatty-acid binding protein (A-FABP) or AP2, has been shown to play a key role in obesity and metabolic syndrome. A-FABP knockout mice are substantially protected from insulin resistance, dyslipidemia, type 2 diabetes and fatty liver disease, despite of increased adipocity.
- ♦ In clinical studies, increased circulating A-FABP levels are found in obese subjects and associated with non-alcoholic fatty liver disease, stroke, and carotid atherosclerosis.



◆ ImmunoDiagnostics team is the first to discover the circulating form of A-FABP, and has developed a wide range of related products used worldwide:

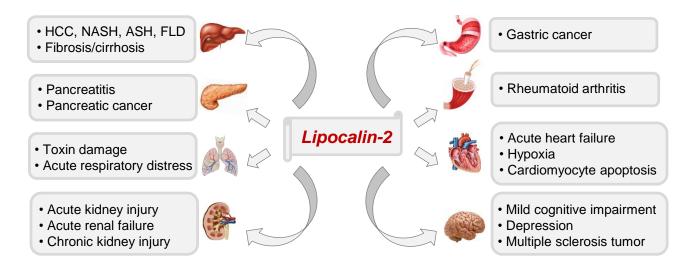
Bioactive proteins and antibodies	Cat No.
Recombinant A-FABP (Human)	41030
Recombinant A-FABP (Mouse)	42030
Anti-A-FABP pAb (Human)	11030
Anti-A-FABP mAb (Human)	21030
Anti-A-FABP pAb (Mouse)	12030

ELISA Kits	Assay Range	Cat No.
Human A-FABP	0.39-25 ng/ml	31030



## Lipocalin-2 /NGAL

- ♦ Lipocalin-2, also known as neutrophil gelatinase-associated lipocalin (NGAL), 24p3, siderocalin, or neutrophil lipocalin (NL), is a secretory glycoprotein expressed in liver, lung, kidney, adipocytes, activated neutrophils and macrophages.
- ◆ Lipocalin-2 is upregulated under various inflammation and infection conditions and can be served as a sensitive biomarker for various renal injuries. Serum levels of lipocalin-2 are positively correlated with obesity, insulin resistance, hyperglycemia, coronary heart disease and fatty liver disease in humans.



◆ ImmunoDiagnostics team is the first to report lipocalin 2 as a biomarker for metabolic inflammation and insulin resistance, and has developed a series of related products:

Bioactive proteins and antibodies	Cat No.
Recombinant Lipocalin-2 (Human)	41050
Recombinant Lipocalin-2 (Mouse)	42050
Anti-Lipocalin-2 pAb (Human)	11050
Anti-Lipocalin-2 pAb (Mouse)	12050
Anti-Lipocalin-2 MAb (Human), clone 2G1	21050
Anti-Lipocalin-2 MAb (Human), clone 2C3	21051

ELISA Kits	Assay Range	Cat No.
Human Lipocalin-2	0.39–25 ng/ml	31050
Mouse Lipocalin-2	0.15-10 ng/ml	32050
Immunoturbidimetric (ITA) Assay	Assay Range	Cat No.
Human Lipocalin-2	0 - 5000 ng/ml	51300

# Featured ImmunoMetabolism Related Products

ELISA Assays		All products are RU
Product	Assay Range	Cat No.
Insulin ELISA kits		
Human Insulin	3 -120 μIU/mI	31380
Wide range mouse Insulin	1 -50 ng/ml	32100
Wide range rat Insulin	1 -50 ng/ml	33100
High sensitive mouse Insulin	0.2 -7 ng/ml	32270
High sensitive rat Insulin	0.2 -7 ng/ml	33270
Ultra sensitive mouse Insulin	0.025-1.5 ng/ml	32380
Ultra sensitive rat Insulin	0.025-1.5 ng/ml	33380
Adiponectin ELISA kits		
Human adiponectin	1.55-100 ng/ml	31010
Rapid Human adiponectin	7.8-500 ng/ml	31012
Mouse adiponectin	3.12-200 ng/ml	32010
Fibroblast growth factor 21 (FGF-21) ELISA kits	·	·
Human FGF-21	30-1920 pg/ml	31180
Mouse FGF-21	31.2-2000 pg/ml	32180
Fatty-acid binding protein 4 (FABP4/A-FABP) ELI	SA kits	
Human fatty-acid binding protien 4	0.39-25 ng/ml	31030
Lipocalin-2/NGAL ELISA kits		·
Human lipocalin-2	0.39-25 ng/ml	31050
Mouse lipocalin-2	0.15-10 ng/ml	32050
Neutrophil Serine Proteases ELISA kits	·	·
Human neutrophil elastase (NE)	0.156-10 ng/ml	31330
Human Proteinase 3 (PR3)	0.156-10 ng/ml	31300
Mouse Proteinase 3 (PR3)	0.1-6.4 ng/ml	32300
Other ELISA Kits	·	·
Human FGF-19	31.2-2000 pg/ml	31200
Human alpha 1 antitrypsin (A1AT)	0.312-20 ng/ml	31420
Human C-reactive protein	0.78-50 ng/ml	31220
Rapid Human C-reactive protein	0.78-50 ng/ml	31222
Mouse major urinary protein 1	0.62-40 ng/ml	32150
Human plasminogen activator inhibitor type-1	0.031-2 ng/ml	31070
Human rentinol binding protein 4	3.12-200 ng/ml	31060