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# Featured





# About arigo



Have you noticed a **squirrel** hidden in the logo of arigo? arigo Biolaboratories use the squirrel as a symbol and aim to provide quality antibodies, antibody duos/panels, and ELISA kits to accelerate scientific research. Our specialty **antibody duos** are smart solution for paper publications. Antibody panels consist of multiple antibodies grouped together according to their scientific relevance. arigo also offers diverse **ELISA** kits to meet the needs in the emerging research world. Like squirrels, arigo are nuts about **antibodies**.

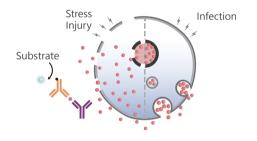
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## HMGB1

HMGB1 is a multifunctional protein with various roles in different cellular compartments. It is not only actively secreted from activated dendritic cells and macrophages but also passively released by injured or necrotic cells. Extracellular HMGB1 functions as a cytokine to activate the inflammation responses. It also induces the expression of PAI-1 and tPA, thus regulates fibrinolysis. HMGB1 has attracted the attention of both basic and clinical researchers as its association with various pathologies such as cancer, sepsis, arteriosclerosis, chronic rheumatoid arthritis and nephritis.



## **Advantages**

- HMGB1 specific. No cross reactivity with HMGB2.
- Suitable for multiple samples from multiple species.
- Easy & Fast by steps of 2 incubations and 1 wash.

### Comprehensive HMGB1 ELISA Kits

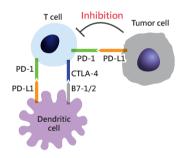
Cat. No	Product	Sensitivity	Reactivity	Sample types
ARG81185	Human HMGB1 ELISA Kit	0.3 ng/ml	Hu	Plasma, Culture sup.
ARG81310	Mouse/Rat HMGB1 ELISA Kit	0.3 ng/ml	Ms, Rat	Plasma, Culture sup., Lysate
ARG81351	HMGB1 ELISA Kit	0.4 ng/ml	Hu, Ms, Rat	Serum

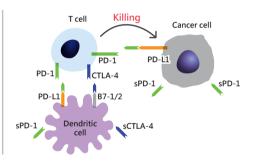
ELISA Kits for Inflammation see page 16-18 ELISA Kits for Fibrinolysis see page 12-13

www.arigobio.com Highlight ELISA Kits

## sPD-1 & sCTLA-4

The immune system is capable of defending against pathogens and early malignant cells, but it maintains tolerance to self. The signaling mediated by co-inhibitory receptors PD-1 and CTLA-4 is essential for maintaining immune tolerance. Many cancer cells over-express PD-L1, the PD-1 ligand, to escape the immunological attack by inactivating T cells through PD-1 signaling. Increasing evidence shows soluble form of PD-1 (sPD-1) and CTLA-4 (sCTLA-4) are present in patients/animal models with autoimmune diseases and cancers. Quantifying the blood levels of sPD-1 and sCTLA-4 facilitate the prediction of pathological characteristics, treatment response, and survival outcomes in patients with autoimmune diseases or cancers.



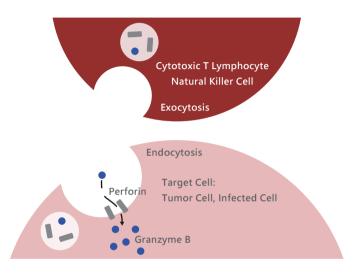


Target	Cat. No	Product	Sensitivity	Sample types
sCTLA-4	ARG81327	Human sCTLA-4 ELISA Kit	0.6 U/ml	Plasma, Serum, Culture sup.
sPD-1	ARG81360	Human sPD-1 ELISA Kit	0.44 pg/ml	Plasma, Serum, Culture sup.
SPD-1	ARG81342	Mouse sPD-1 ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.

# **Granzyme B & Perforin**

Cytotoxic T lymphocytes (CTLs) and natural killer (NK) cells utilize the Granzyme/Perforin pathway for target-cell killing. Granzymes are proteases that are packaged in cytotoxic granules with Perforin. Perforin is a membrane-disrupting protein that facilitates the delivery of Granzymes into the target cell. The Granzymes initiate caspase-dependent or -independent cell death.

Deficiency of Granzyme/Perforin has been found in various cancers and autoimmune diseases. Increased Granzyme B and Perforin would be detected in immune cell-mediated cytotoxicity, and therefore quantification of Granzyme B and Perforin can be applied for monitoring CTLs/NK cells mediated apoptosis or transplant rejection, as well as for evaluating treatment effect of cancers or autoimmune disorders.



Target	Cat. No	Product	Sensitivity	Sample types
Granzyme B	ARG80171	Human Granzyme B ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.
Perforin	ARG80173	Human Perforin ELISA Kit	20 pg/ml	Plasma, Serum, Culture sup.

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# MMP9

MMP9 is a protease involved in the degradation of extracellular matrix and activation of cytokines and chemokines. It is associated with various disorders, including cancers, autoimmune diseases, cardiovascular diseases, and neuropsychiatric disorders. Elevated MMP9 expression is found in patients with these associated diseases. MMP9 is an emerging biomarker for multiple diseases as well as a useful marker to evaluating the treatment effect of new medicine.

## **Advantages**

- MMP9 specific.
- No cross reactivity with other MMPs and TIMPs.
- Suitable for multiple samples from multiple species.
- Sensitive and always reproductive.

	Cat. No	Product	Sensitivity	Sample types
••	ARG80129	Human MMP9 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
	ARG81241	Mouse MMP9 ELISA Kit	79 pg/ml	Plasma, Serum, Culture sup.
	ARG81152	Rat MMP9 ELISA Kit	40 pg/ml	Plasma, Serum, Culture sup.

ELISA Kits for Cardiovascular biomarkers see page 09-10 ELISA Kits for Alzheimer's disease see page 19

# **Selected citations**

#### Hormone

## Human Melatonin ELISA Kit (ARG80864)

Lee and Back, (2017) J Pineal Res. 62(2).

#### Human Melatonin ELISA Kit (ARG80461)

Wu et al., (2017) J Pediatr (Rio J). pii:S0021-7557(17)30150-X.

#### Rat TSH ELISA Kit (ARG80664)

Horiguchi et al., (2016) BBRC. 480:273-9.

#### Alzheimer's disease

# Human beta-Amyloid 42 ELISA Kit (ARG81143)

Peng et al., (2016) Sci Rep. 6:29372.

# Mouse/Rat beta-Amyloid 42 ELISA Kit (ARG80939)

Shi et al., (2016) Neuroscience. 315:125-35.

#### Inflammation

#### Mouse IL-1 beta ELISA Kit (ARG80196) Mouse IL-6 ELISA Kit (ARG80199)

Zou et al., (2017) Sci Rep. 7(1):2454. Chen et al., (2017) Colloids Surf B Biointerfaces. 160:372-380.

#### Rat IL-6 ELISA Kit (ARG80233)

Tanaka et al., (2017) J Diabetes Investig. doi:10.1111/jdi.12729.

#### Human IL-8 ELISA Kit (ARG80111)

Kao et al., (2017) Front Microbiol. 8:483. Carola et al., (2016) J Sens Sens Syst., 5:229-235.

## Human IFN gamma ELISA Kit (ARG80117)

Li et al., (2017) Oncolmmunology. 6(3):e1290038.

#### Mouse TNF alpha ELISA Kit (ARG80206)

Zou et al., (2017) Sci Rep. 7(1):2454.

### Cytokines

#### Human IL-2 ELISA Kit (ARG80103)

Shamriz and Ofoghi, (2018) J Biotechnol. 266:111-117.

#### Microbe infection

# Human *H. pylori* IgG antibody ELISA Kit (ARG80559)

Sukri et al., (2016) Helicobacter. 21(5):417-27. Sukri et al., (2017) Malays J Pathol. 39(3):235-242.

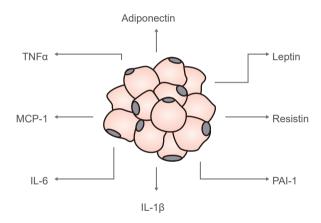
# Human CMV IgG antibody ELISA Kit (ARG80536)

Human CMV IgM antibody ELISA Kit (ARG80537)

Han et al., (2017) Cancer Immunol Immunother. 66(10):1265-1273.

# **Adipokines**

Adipokines, also known as adipocytokines, are cytokines secreted by adipose tissue. Adipokines play important roles in fat metabolism, feeding behavior, hemostasis, vascular tone, energy balance, and insulin sensitivity. They raise a great interest as the association of therapeutic possibility for diabetes, appetite, obesity, atherosclerosis, and cardiovascular diseases.



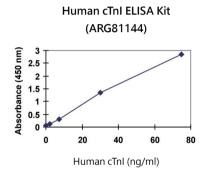
Target	Cat. No	Product	Sensitivity	Sample types
	ARG80131	Human Adiponectin ELISA Kit	80 pg/ml	Plasma, Serum, Culture sup.
Adiponectin	ARG80726	Mouse Adiponectin ELISA Kit	< 8 pg/ml	Plasma, Serum
	ARG80683	Rat Adiponectin ELISA Kit	< 81 pg/ml	Plasma, Serum
FGF21	ARG80158	Human FGF21 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.

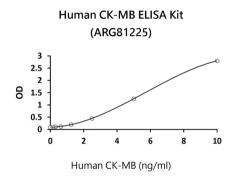
Target	Cat. No	Product	Sensitivity	Sample types
	ARG80101	Human IL-1 beta ELISA Kit	4 pg/ml	Plasma, Serum, Culture sup.
IL-1 beta	ARG80196	Mouse IL-1 beta ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
•••	ARG80235	Rat IL-1 beta ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.
IL-1RA	ARG80193	Human IL-1RA ELISA Kit	23 pg/ml	Plasma, Serum, Culture sup.
	ARG80110	Human IL-6 ELISA Kit	1.5 pg/ml	Plasma, Serum, Culture sup.
IL-6	ARG80199	Mouse IL-6 ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
•••	ARG80233	Rat IL-6 ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.
Leptin	ARG80126	Human Leptin ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
серии	ARG80715	Mouse/Rat Leptin ELISA Kit	10 pg/ml	Serum
Lipocalin-2	ARG80941	Human Lipocalin-2 ELISA Kit	40 pg/ml	Plasma, Serum, Culture sup.
	ARG80128	Human MCP-1 / CCL2 ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
MCP-1	ARG80212	Mouse MCP-1 / CCL2 ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.
•••	ARG80246	Rat MCP-1 / CCL2 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
	ARG80762	Human PAI-1 ELISA Kit	24 pg/ml	EDTA-Plasma, Serum, Culture sup.
PAI-1	ARG81054	Mouse PAI-1 ELISA Kit	31 pg/ml	Plasma
•••	ARG81059	Rat PAI-1 ELISA Kit	42 pg/ml	Plasma
Resistin	ARG80147	Human Resistin ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
NCSISCIT	ARG81339	Mouse Resistin ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
	ARG80120	Human TNF alpha ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
TNF alpha	ARG80206	Mouse TNF alpha ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
	ARG80241	Rat TNF alpha ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.

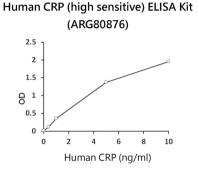
ELISA Kits for Cardiovascular biomarkers see page 09-10 ELISA Kits for Diabetes markers see page 14

# Cardiovascular biomarkers

Cardiovascular diseases, the leading cause of death worldwide, refer to a class of disorders that are related with the heart and blood vessels, including atherosclerosis, heart attacks, heart failure, hypertension, stroke, and more. Cardiovascular biomarkers play a crucial role as indicators of biologic state for the diagnosis and prognosis of cardiovascular diseases.







Target	Cat. No	Product	Sensitivity	Sample types
8-OHdG	ARG80911	8-OHdG ELISA Kit	0.59 ng/ml	Plasma, Lysate, Urine
ANP	ARG81128	Rat ANP ELISA Kit	0.25 ng/ml	Plasma, Serum, Lysate
АроВ	ARG81098	Human Apolipoprotein B ELISA Kit	1.5 ng/ml	Plasma, Serum, Urine
sCD40L	ARG80130	Human sCD40L ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.
CK-MB	ARG81225	Human CK-MB ELISA Kit	0.35 ng/ml	Plasma, Serum, Lysate
CRP	ARG80876	Human CRP (High sensitive) ELISA Kit	20 ng/ml	Plasma, Serum
sFas	ARG81254	Human sFas ELISA Kit	60 pg/ml	Plasma, Serum, Culture sup.

Target	Cat. No	Product	Sensitivity	Sample types
Galectin-3 ····	ARG81257	Human Galectin-3 ELISA Kit	31 pg/ml	Plasma, Serum, Culture sup.
Galectin-5	ARG81198	Mouse Galectin-3 ELISA Kit	2 pg/ml	Plasma, Serum, Culture sup.
GDF-15	ARG81259	Human GDF-15 ELISA Kit	4 pg/ml	Plasma, Serum, Culture sup.
sICAM-1	ARG80125	Human sICAM-1 ELISA Kit	0.2 ng/ml	Plasma, Serum, Culture sup.
Oxidized LDL	ARG81194	Human Oxidized LDL ELISA Kit	< 100 ng/ml	Plasma, Serum, Body fluid
	ARG80129	Human MMP9 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
MMP9	ARG81241	Mouse MMP9 ELISA Kit	79 pg/ml	Plasma, Serum, Culture sup.
	ARG81152	Rat MMP9 ELISA Kit	40 pg/ml	Plasma, Serum, Culture sup.
MPO	ARG80361	Human MPO ELISA Kit	0.5 U/ml	Plasma, Serum
NGAL	ARG80941	Human NGAL ELISA Kit	40 pg/ml	Plasma, Serum, Culture sup.
	ARG80762	Human PAI-1 ELISA Kit	24 pg/ml	EDTA-Plasma, Serum, Culture sup.
PAI-1	ARG81054	Mouse PAI-1 ELISA Kit	31 pg/ml	Plasma
••••	ARG81059	Rat PAI-1 ELISA Kit	42 pg/ml	Plasma
PAPPA	ARG80784	Human PAPPA ELISA Kit	0.133 μg/ml	Plasma, Serum
PIGF-1	ARG80142	Human PIGF-1 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
P-Selectin	ARG81270	Human P-Selectin ELISA Kit	62 pg/ml	Plasma, Serum, Culture sup.
S100B	ARG81247	Human S100B ELISA Kit	10 pg/ml	Plasma, Serum, Culture sup.
-CT2	ARG81260	Human sST2 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
sST2 ····	ARG80230	Mouse sST2 ELISA Kit	0.2 ng/ml	Plasma, Serum, Culture sup.
sTRAIL	ARG81330	Human sTRAIL ELISA Kit	64 pg/ml	Plasma, Serum, Culture sup.
Troponin I	ARG81144	Human cTnl ELISA Kit	1.0 ng/ml	Serum
sVCAM-1	ARG80134	Human sVCAM-1 ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.

# **Coagulation & Fibrinolysis**

Coagulation is a process by which liquid blood form a blood clot to avoid blood loss from a damaged vessel. Coagulation is initiated through intrinsic and extrinsic pathways. Both pathways result in the beginning of common pathway of coagulation, which results in clot formation. Fibrinolysis is a process to clear blood clots. Primary fibrinolysis is a normal process to avoid risks of blood clotting disorders such as strokes and certain heart damage. Secondary fibrinolysis, that can be induced with medications or occur as the result of stress or disease, may cause severe bleeding. The homeostatic balance of two processes is critical and the imbalance of coagulation and fibrinolysis can either lead to thrombosis or hemorrhage.

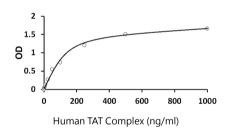
## Coagulation

Target	Cat. No	Product	Sensitivity	Sample types
Prekallikrein	ARG81116	Human Prekallikrein ELISA Kit	18 ng/ml	Plasma
	ARG81112	Human Factor V ELISA Kit		Plasma
	ARG81111	Human Factor VII ELISA Kit	0.187 ng/ml	Plasma
	ARG81110	Human Factor VIII ELISA Kit	0.00028 IU/ml	Plasma
Coagulation	ARG81109	Human Factor IX ELISA Kit	0.053 ng/ml	Plasma
factor	ARG81115	Human Factor X ELISA Kit	0.039 ng/ml	Plasma
	ARG81119	Mouse Factor X ELISA Kit	0.146 ng/ml	Plasma
	ARG81114	Human Factor XI ELISA Kit	0.008 ng/ml	Plasma
	ARG81113	Human Factor XII ELISA Kit	0.137 ng/ml	Plasma
	ARG80936	Mouse Factor XII ELISA kit		Plasma
	ARG81134	Human Factor XIII ELISA Kit		Plasma, Serum, Culture sup., Urine, Saliva, Milk, CSF
Thrombin -	ARG81117	Human Prothrombin ELISA Kit	0.166 ng/ml	Plasma
	ARG80938	Mouse Prothrombin ELISA kit		Plasma, Serum, Culture sup., Lysate
	ARG81081	Human Fibrinogen ELISA Kit	1.4 ng/ml	Plasma, Serum
Fibrinogen	ARG81082	Mouse Fibrinogen ELISA Kit		Plasma, Serum
	ARG81085	Rat Fibrinogen ELISA Kit	0.184 ng/ml	Plasma, Serum

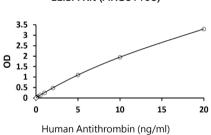
## Protein C pathway

Target	Cat. No	Product	Sensitivity	Sample types
AT	ARG81108	Human Antithrombin ELISA Kit		Plasma
TAT	ARG81118	Human Thrombin-Antithrombin Complex ELISA Kit	0.718 ng/ml	Plasma, Serum
Protein C	ARG81037	Human Protein C ELISA Kit	6%	Citrated Plasma
Protein S	ARG81038	Human Protein S ELISA Kit	1%	Plasma
TM	ARG81318	Human Thrombomodulin ELISA Kit	0.31 ng/ml	Plasma, Serum, Culture sup.

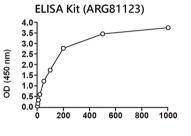
# Human Thrombin-Antithrombin Complex ELISA Kit (ARG81118)



# Human Antithrombin ELISA Kit (ARG81108)



### Human Plasmin-Antiplasmin (PAP) Complex



Human PAP Complex (ng/ml)

## **Fibrinolysis**

Target	Cat. No	Product	Sensitivity	Sample types
Antiplasmin	ARG81079	Human alpha-2-Antiplasmin ELISA Kit	0.028 ng/ml	Plasma
Antipiasinin	ARG81080	Mouse Antiplasmin ELISA Kit		Plasma, Serum
PAP	ARG81123	Human Plasmin-Antiplasmin Complex ELISA Kit	0.155 ng/ml	Plasma, Serum, Culture sup., Tissue ext., Urine
-l-b- 2 N4	ARG81096	Human alpha-2-Macroglobulin ELISA Kit	0.2 ng/ml	Plasma
alpha-2-M ··	ARG81189	Rat alpha-2-Macroglobulin ELISA Kit	0.1 ng/ml	Plasma, Serum, Culture sup., Urine

Target	Cat. No	Product	Sensitivity	Sample types
	ARG80762	Human PAI-1 ELISA Kit	24 pg/ml	EDTA-Plasma, Serum, Culture sup.
PAI-1	ARG81054	Mouse PAI-1 ELISA Kit	31 pg/ml	Plasma
	ARG81059	Rat PAI-1 ELISA Kit	42 pg/ml	Plasma
	ARG81051	Human PAI-1 (active) ELISA Kit	0.11 U/ml	Plasma
Active PAI-1	ARG81053	Mouse PAI-1 (active) ELISA Kit	31 pg/ml	Plasma
	ARG81058	Rat PAI-1 (active) ELISA Kit	79 pg/ml	Plasma
	ARG81063	Human tPA ELISA Kit	56.8 pg/ml	Plasma, Serum, Culture sup., Tissue ext., Urine
tPA	ARG81065	Mouse tPA ELISA Kit	35 pg/ml	Plasma
	ARG81069	Rat tPA ELISA Kit	42 pg/ml	Plasma
	ARG81062	Human tPA (active) ELISA Kit	0.006 IU/ml	Plasma
Active tPA	ARG81064	Mouse tPA (active) ELISA Kit	14 pg/ml	Plasma
٠	ARG81068	Rat tPA (active) ELISA Kit	43 pg/ml	Plasma
	ARG81071	Human uPA ELISA Kit	43 pg/ml	Plasma, Serum, Culture sup., Tissue ext.
uPA .	ARG81073	Mouse uPA ELISA Kit	10 pg/ml	Plasma
٠	ARG81075	Rat uPA ELISA Kit	17.2 pg/ml	Plasma
	ARG81070	Human uPA (active) ELISA Kit	13 pg/ml	Plasma
Active uPA	ARG81072	Mouse uPA (active) ELISA Kit	16 pg/ml	Plasma
•	ARG81074	Rat uPA (active) ELISA Kit		Plasma
PAI-1/PA	ARG81060	Human PAI-1/tPA Complex ELISA Kit	27 pg/ml	Plasma, Serum, Culture sup., Tissue ext., Urine
Complex	ARG81061	Human PAI-1/uPA Complex ELISA Kit	70 pg/ml	Plasma, Serum, Culture sup., Tissue ext., Urine
Diaminana	ARG81078	Human Plasminogen (total) ELISA Kit	0.11 ng/ml	Plasma, Serum, Culture sup.
Plasminogen -	ARG80937	Mouse Plasminogen ELISA kit		Plasma, Serum, Culture sup., Tissue ext., Urine
\/itaa.a.a.tia	ARG81076	Human Vitronectin ELISA Kit		Plasma, Serum, Culture sup., Tissue ext.
Vitronectin -	ARG81077	Mouse Vitronectin ELISA Kit		Plasma, Serum, Culture sup., Tissue ext.

## **Diabetes markers**

Diabetes, a disorder with phenotype of high blood glucose level, is caused by the failure of producing or responding to insulin, a hormone for reducing glucose level and leads to many complications, including chronic kidney disease, foot ulcers, heart attack, stroke, eye damage. The quantification of diabetes markers in blood by ELISA is critical for diagnosis, prognosis and study of diabetes.

Target	Cat. No	Product	Sensitivity	Sample types
	ARG80780	Human GAD antibody ELISA Kit	0.57 U/ml	Serum
	ARG80781	Human IA2 antibody ELISA Kit	1.25 U/ml	Serum
Autoantibody **	ARG80395	Human Insulin antibody ELISA Kit	0.5 U/ml	Plasma, Serum
••	ARG80983	Human Islet Cell antibody ELISA Kit		Serum
Glucagon	ARG81293	Glucagon ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
	ARG80495	Human IGF1 ELISA Kit	90 pg/ml	Plasma, Serum
IGF	ARG80224	Mouse IGF1 ELISA Kit	50 pg/ml	Plasma, Serum, Culture sup.
	ARG80496	Human IGF2 ELISA Kit	20 pg/ml	Plasma, Serum, Culture sup., Saliva, Urine
	ARG80157	Human IGFBP1 ELISA Kit	25 pg/ml	Plasma, Serum, Culture sup.
	ARG80493	Human IGFBP2 ELISA Kit	0.2 ng/ml	EDTA-Plasma, Serum, Culture sup., CSF, Saliva, Milk
IGFBP	ARG80703	Mouse/Rat IGFBP2 ELISA Kit	10 pg/ml	Plasma, Serum
	ARG80494	Human IGFBP3 ELISA Kit	0.1 ng/ml	Plasma, Serum
	ARG80704	Mouse/Rat IGFBP3 ELISA Kit	18 pg/ml	Serum
	ARG80783	Human Proinsulin ELISA Kit	0.5 pmol/l	Plasma, Serum
	ARG80488	Human Insulin ELISA Kit	1.76 μIU/ml	Plasma, Serum
Insulin	ARG81295	Mouse Insulin ELISA Kit	5-50 pg/ml	Plasma, Serum, Culture sup.
	ARG80655	Rat Insulin ELISA Kit	93 pg/ml	EDTA-Plasma, Serum
	ARG80782	Human C-peptide ELISA Kit	64 pg/ml	Plasma, Serum, Urine

# Renin-angiotensin system

Renin-angiotensin system is a hormone system that regulates blood pressure and fluid balance. Three key components renin, angiotensin and aldosterone are involved. Plasma renin, released from kidney, and ACE, released from lung, sequentially convert liver-secreted angiotensinogen to angiotensin, which in turn stimulates the release of aldosterone and ADH and results to increasing fluid retention by the kidneys. Reninangiotensin system is connected with the generation of various diseases including hypertension, congestive heart failure, atherosclerosis, kidney disease and diabetes.

Target	Cat. No	Product	Sensitivity	Sample types
	ARG80958	Human ACE ELISA Kit	24 pg/ml	Plasma, Serum, Culture sup., Lysate
ACE	ARG80959	Human ACE2 ELISA Kit	12.5 pg/ml	Plasma, Serum, Culture sup., Lysate, Body fluid
	ARG80968	Rat ACE2 ELISA Kit	0.1 U/L	Plasma, Serum, Culture sup., Body fluid
Aldosterone	ARG80627	Human Aldosterone ELISA Kit	< 5.7 pg/ml	Plasma, Serum, Urine
A	ARG80960	Human Angiotensin 1-7 ELISA Kit	2 pg/ml	Plasma, Serum, Culture sup.
Angiotensin •	ARG80961	Human Angiotensin 2 ELISA Kit	2 pg/ml	Plasma, Serum, Culture sup., Tissue ext.
	ARG81086	Human Prorenin ELISA Kit	13 pg/ml	Plasma, Serum, Culture sup.
Prorenin	ARG81088	Mouse Prorenin / Renin ELISA Kit		Culture sup.
	ARG80935	Rat Prorenin / Renin ELISA Kit		Plasma, Serum, Culture sup.
	ARG80884	Human Renin ELISA Kit	0.81 pg/ml	Plasma (EDTA, Heparin), Serum
Renin	ARG80882	Human Plasma Renin Activity ELISA Kit	0.14 ng/ml	Plasma

ELISA Kits for Cardiovascular biomarkers see page 09-10 ELISA Kits for Diabetes markers see page 14

# **Inflammation**

Inflammation is a defense process against harmful stimuli, including damaged cells, irritants, or pathogens. Acute inflammation is required for healing, defense and repairing. Chronic inflammation is associated with many diseases including atherosclerosis, cancer, arthritis and autoimmune disorders. Inflammatory cells secrete bioactive mediators, such as cytokines and chemokines, to amplify the inflammatory response. Quantification of the inflammatory mediators or biomarkers is becoming a major focus to study the inflammation and its associated disorders.

## **Proinflammatory Cytokines**

Target	Cat. No	Product	Sensitivity	Sample types
	ARG80191	Human IL-1 alpha ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
IL-1 alpha	ARG80204	Mouse IL-1 alpha ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
	ARG80237	Rat IL-1 alpha ELISA Kit	4 pg/ml	Plasma, Serum, Culture sup.
	ARG80101	Human IL-1 beta ELISA Kit	4 pg/ml	Plasma, Serum, Culture sup.
IL-1 beta	ARG80196	Mouse IL-1 beta ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
	ARG80235	Rat IL-1 beta ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.
	ARG80110	Human IL-6 ELISA Kit	1.5 pg/ml	Plasma, Serum, Culture sup.
IL-6	ARG80199	Mouse IL-6 ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
	ARG80233	Rat IL-6 ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.
IL-8	ARG80111	Human IL-8 ELISA Kit	4 pg/ml	Plasma, Serum, Culture sup.
IL-12 p70 ····	ARG80115	Human IL-12 p70 ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
112-12-ρ70	ARG80201	Mouse IL-12 p70 ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
IL-18 ····	ARG80138	Human IL-18 ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
12 10	ARG80946	Mouse IL-18 ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.

Target	Cat. No	Product	Sensitivity	Sample types
	ARG80122	Human GM-CSF ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
GM-CSF	ARG80229	Mouse GM-CSF ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
	ARG81282	Rat GM-CSF ELISA Kit	7 pg/ml	Plasma, Serum, Culture sup.
	ARG80117	Human IFN gamma ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
IFN gamma	ARG80205	Mouse IFN gamma ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
	ARG80240	Rat IFN gamma ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
	ARG80128	Human MCP-1 / CCL2 ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
MCP-1	ARG80212	Mouse MCP-1 / CCL2 ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.
	ARG80246	Rat MCP-1 / CCL2 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
	ARG80120	Human TNF alpha ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
TNF alpha	ARG80206	Mouse TNF alpha ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
	ARG80241	Rat TNF alpha ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.

# **Anti-inflammatory Cytokines**

Target	Cat. No	Product	Sensitivity	Sample types
IL-1RA	ARG80193	Human IL-1RA ELISA Kit	23 pg/ml	Plasma, Serum, Culture sup.
	ARG80106	Human IL-4 ELISA Kit	2 pg/ml	Plasma, Serum, Culture sup.
IL-4	ARG80198	Mouse IL-4 ELISA Kit	4 pg/ml	Plasma, Serum, Culture sup.
	ARG80232	Rat IL-4 ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.
	ARG80113	Human IL-10 ELISA Kit	0.4 pg/ml	Plasma, Serum, Culture sup.
IL-10	ARG80200	Mouse IL-10 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
	ARG80234	Rat IL-10 ELISA Kit	30 pg/ml	Plasma, Serum, Culture sup.
IL-11	ARG80139	Human IL-11 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.

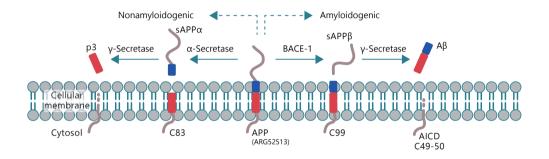
Target	Cat. No	Product	Sensitivity	Sample types
IL-13 ···	ARG80148	Human IL-13 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
IL-13	ARG80223	Mouse IL-13 ELISA Kit	8 pg/ml	Plasma, Serum, Culture sup.
	ARG80123	Human TGF beta1 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
TGF beta	ARG80211	Mouse TGF beta1 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
	ARG80245	Rat TGF beta1 ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
sTNF-RI	ARG81140	Human sTNF-RI ELISA Kit	5 pg/ml	EDTA-Plasma, Serum, Culture sup.
sTNF-RII	ARG81141	Human sTNF-RII ELISA Kit	3.9 pg/ml	Plasma, Serum, Culture sup.

## Other inflammation markers

Target	Cat. No	Product	Sensitivity	Sample types
AAG	ARG81224	alpha-1-acid glycoprotein ELISA Kit	30 pg/ml	Plasma, Serum, Urine, Lysate
Complement	ARG81090	Human C3 ELISA Kit	11.7 pg/ml	Plasma, Serum, Urine, Culture sup., Saliva, Milk
System	ARG81091	Mouse C3 ELISA Kit	71.9 ng/ml	Plasma, Serum
System	ARG80868	C5a ELISA Kit	20 pg/ml	Plasma, Urine
Ceruloplasmin	ARG81099	Human Ceruloplasmin ELISA Kit	0.333 ng/ml	Plasma, Serum, Urine, Culture sup., Saliva, Milk
CRP	ARG80195	Human CRP ELISA Kit	1.6 ng/ml	Plasma, Serum, Culture sup.
CIVE	ARG81089	Mouse CRP ELISA Kit	5 pg/ml	Plasma
Ferritin	ARG80501	Human Ferritin ELISA Kit	0.53 ng/ml	Plasma (EDTA, Heparin), Serum
Fibronectin	ARG81301	Human Fibronectin ELISA Kit	3 ng/ml	Urine, Culture sup., CSF, Saliva, Milk
ribionectiii	ARG81186	Mouse Fibronectin ELISA Kit	2.4 ng/ml	Plasma, Serum, Urine, Culture sup.
Haptoglobin	ARG81223	Haptoglobin ELISA Kit	1 ng/ml	Plasma, Serum, Urine, Lysate
SAA	ARG80931	Human Serum Amyloid A ELISA Kit	< 1.1 ng/ml	Plasma, Serum, Urine, Culture sup., Body fluid

# Alzheimer's disease

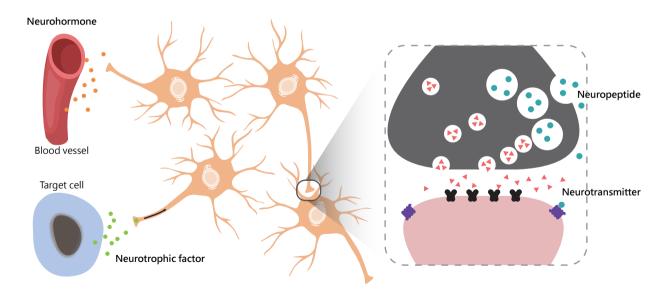
Alzheimer's disease (AD), a common neurodegenerative disorder in elderly people, is characterized by senile plaques and neurofibrillary tangles in brain. The main components of the senile plaques and neurofibrillary tangles are A $\beta$ 42 (beta-Amyloid 42) and hyperphosphorylated Tau respectively. The levels of A $\beta$ , Tau and neuroinflammation markers are frequently examined by ELISA assay for studying Alzheimer's disease.



Target	Cat. No	Product	Sensitivity	Sample types
•••••	ARG81143	Human beta-Amyloid 42 ELISA Kit	0.29 pg/ml	CSF, EDTA-Plasma, Culture sup.
	ARG80939	Mouse/Rat beta-Amyloid 42 ELISA Kit	2 pg/ml	Lysate
beta-Amyloid	ARG80981	Mouse/Rat beta-Amyloid 42 ELISA Kit	0.05 pg/ml	Plasma, Serum
	ARG81300	Human beta-Amyloid 40 ELISA Kit	1 pg/ml	CSF, Plasma, Serum, Lysate, Culture sup.
	ARG80980	Mouse/Rat beta-Amyloid 40 ELISA Kit	0.28 pg/ml	Plasma, Serum, Lysate, Culture sup.
Neurofilament	ARG81164	Phosphorylated NF-H ELISA Kit		CSF, Plasma, Serum, Lysate
Tau	ARG81145	Human Tau ELISA Kit	5.2 pg/ml	CSF, Plasma, Serum, Lysate, Culture sup.

# **Neuroactive substances & Neurotrophic factors**

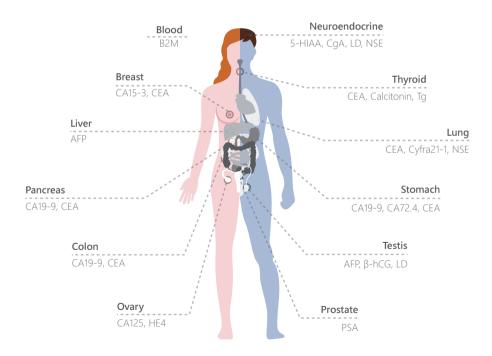
Neural cells release various chemicals (neuroactive substances) to affect the actions of other neurons or cells. Neurotransmitters and neuropeptides deliver signals to neighboring cells. Neurohormones are released into the blood and work at distant target sites within the body. Neurotrophic factors, usually released from the target cells of the neurons, regulate the proliferation, survival, migration, and differentiation of cells in the nervous system. arigo offers a series of quality ELISA kits to facilitate the quantification of neurotransmitters, neuropeptides, neurohormones, or neurotrophic factors.



Target	Cat. No	Product	Sensitivity	Sample types
	ARG80442	Human Adrenaline ELISA Kit	Plasma: 10 pg/ml Urine: 0.9 ng/ml	Plasma, Urine
	ARG80447	Human Dopamine ELISA Kit	Plasma: 1.9 pg/ml Urine: 2.5 ng/ml	Plasma, Urine
Neurotransmitter	ARG80451	Human GABA ELISA Kit	Plasma: 25 ng/ml Serum: 25 ng/ml Urine: 49 ng/ml	Plasma, Serum, Urine
	ARG80453	Human Glutamate ELISA Kit	0.3 μg/ml	EDTA-Plasma, Serum, Urine
	ARG80455	Human Histamine ELISA Kit	Plasma: 0.12 ng/ml Urine: 0.3 ng/ml	Plasma, Urine
	ARG80472	Human Noradrenaline ELISA Kit	Plasma: 40 pg/ml Urine: 1.7 ng/ml	Plasma, Urine
	ARG80480	Human Serotonin ELISA Kit	6.2 ng/ml	PRP, Platelets, Serum, Urine
Neuropeptide	ARG80934	Neuropeptide Y ELISA Kit	0.09 ng/ml	CSF, Plasma, Tissue ext.
Neuropeptide	ARG81246	VIP ELISA Kit	0.12 ng/ml	Plasma
Neurohormone	ARG81122	Neurotensin ELISA Kit	0.2 ng/ml	CSF, Plasma, Tissue ext.
Neuronomone	ARG80879	Human Oxytocin ELISA Kit	15 pg/ml	CSF, Plasma, Serum, Urine, Saliva, Milk, Culture sup.
	ARG81251	Human BDNF ELISA Kit	7 pg/ml	Plasma, Serum, Culture sup.
	ARG80954	Human CNTF ELISA Kit	0.07 ng/ml	CSF, Tissue ext.
	ARG80249	Rat CNTF ELISA Kit	15 pg/ml	Plasma, Serum, Culture sup.
Neurotrophic	ARG80953	Human GDNF ELISA Kit	< 4 pg/ml	Plasma (EDTA, Heparin), Serum, Culture sup.
factor	ARG81354	Human Neurotrophin-3 ELISA Kit	< 2 pg/ml	Plasma, Serum, Tissue ext., Culture sup.
	ARG80133	Human beta-NGF ELISA Kit	4 pg/ml	Plasma, Serum, Culture sup.
	ARG81285	Rat beta-NGF ELISA Kit	7 pg/ml	Plasma, Serum, Culture sup.

# **Tumor markers**

Tumor markers are substances that are elevated in cancerous or certain benign conditions. They can be found in the blood, urine, tumor tissue, or body fluid of patients with cancer. Many different tumor markers have been characterized and are used to help diagnose cancers, detect tumor progression, and check recurrence after treatment.



Target	Cat. No	Product	Sensitivity	Sample types
5-HIAA	ARG80441	Human 5-HIAA ELISA Kit	0.17 mg/l	Urine
AFP	ARG80640	Human AFP ELISA Kit	1.0 IU/ml	Plasma, Serum
B2M	ARG80641	Human B2M ELISA Kit	0.1 μg/ml	Plasma, Serum, Urine
CA15-3	ARG80644	Human CA15-3 ELISA Kit	0.5 U/ml	Plasma, Serum
CA19-9	ARG80645	Human CA19-9 ELISA Kit	0.2 U/ml	EDTA-Plasma, Serum
CA72-4	ARG80896	Human CA72-4 ELISA Kit	0.79 U/ml	Plasma, Serum
CA125	ARG80643	Human CA125 ELISA Kit	0.25 U/ml	Plasma, Serum
Calcitonin	ARG80776	Human Calcitonin ELISA Kit	1.3 pg/ml	Plasma, Serum
hCG	ARG80845	Human hCG ELISA Kit	< 5 mIU/ml	Plasma, Serum
CgA	ARG80446	Human Chromogranin A ELISA Kit	12.4 μg/l	EDTA-Plasma, Serum
Cyfra21-1	ARG80897	Human Cyfra21-1 ELISA Kit	0.15 ng/ml	Plasma, Serum
FGF23	ARG81256	Human FGF23 ELISA Kit	40 pg/ml	Plasma, Serum, Culture sup.
Fibrinogen	ARG81081	Human Fibrinogen ELISA Kit	1.4 ng/ml	Plasma, Serum
Inhibin A	ARG80847	Human Inhibin A ELISA Kit	1 pg/ml	Plasma, Serum
LD	ARG81352	Lactate Dehydrogenase Assay Kit	2 U/l	Plasma, Serum
NSE	ARG80756	Human NSE ELISA Kit	< 1 μg/L	Serum
Prolactin	ARG80852	Human Prolactin ELISA Kit	0.35 ng/ml	Serum
PSA ····	ARG80649	Human PSA ELISA Kit	0.2 ng/ml	Plasma, Serum
	ARG80651	Human PSA (free) ELISA Kit	0.1 ng/ml	Plasma, Serum
hTg	ARG80638	Human Thyroglobulin ELISA Kit	1 ng/ml	Plasma, Serum

**ELISA Troubleshooting Tips** 

# **ELISA Troubleshooting Tips**

## No signal

- Make sure that instructions are followed carefully.
- 2. Increase concentration of antibodies.
- 3. Use freshly prepared reagents.
- 4. Make sure that the settings of plate reader is correct.
- Increase antibody or substrate incubation time.Increase sample concentration.
- 6. Make sure that the plate is not dried out
- 7. duringassay.

## Weak signal

- 1. Use more antigens or antibodies for plate coating.
- 2. Use freshly prepared reagents.

# Variation among replicates

- 1. Make sure that washing is done properly.
- 2. Mix samples gently and evenly.
- 3. Use freshly prepared reagents.
- 4. Remove bubbles before plate reading.
- 5. Use calibrated pipettes.
- 6. Mix all reagent properly and equilibrate to RT before use.
- 7. Make sure that bottom of plate is clean.

#### Poor standard curve

- 1. Use appropriate diluent as blank.
- 2. Make sure that standard dilution is performed properly.
- 3. Briefly spin standard vial before use.
- 4. Store standards as according to protocol.
- 5. Use calibrated pipettes.
- 6. Increase wash cycles.
- 7. Try plotting log-log or 5-parameter logistic curve fit.

## High background

- 1. Reduce concentration of antibodies.
- 2. Change to another affinity-purified antibody.
- 3. Dilute substrate solution.
- 4. Increase washing cycles.
- 5. Do not leave plate too long before reading.
- 6. Increase Tween in wash buffer.
- 7. Use calibrated pipettes.
- 8. Mix all reagent properly and equilibrate to RT before use.
- 9. Increase salt concentration to reduce nonspecific interaction.
- 10.Perform substrate incubation in dark.
- 11. Make sure that bottom of plate is clean.

