

## Brain damage/Hemorrhage

**S-100 $\beta$**  S-100 protein has a molecular weight of 21K Dalton and consist is of two subunits,  $\alpha$  chain and  $\beta$  chain. The combination of these subunits is different from the location in human body. S-100 $\beta\beta$  is localized in glial cell and schwann cell, S-100 $\alpha\beta$  in glial cell and S-100 $\alpha\alpha$  in striated muscle, heart and kidney. It was reported that the concentration of S-100 $\beta$  in cerebrospinal fluid was an useful marker for diagnosis of the degree of brain damage after head injury, cerebral hemorrhage and ischemic stroke. Recently another report described that the increase of S-100 $\beta$  in blood correlated to the degree of brain damage after cerebral ischemia, infarction, hemorrhage and severe head injury.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
S-100 $\beta$ ELISA Kit (Rat/Mouse/Human)	Plasma	0.078 - 5 ng/mL	Sandwich	YII-YK151-EX	96 well (8 well x 12)

Component: Antibody, Antibody coated plate, Standard, Label, Substrate, Others

## Environment

**Estrogen** Estrogen is now known to include over 20 kinds of related steroidal compounds. Among them, estrone (E1), estradiol (E2), and estriol (E3) are most abundant in the human body. These three are highly stable, to which other estrogen-related steroidal compounds are shown to be transformed rapidly in the metabolic processes. Recently, estrogen is attracting public attention as an environmental pollutant, especially in rivers and wastewater. The assessment of such pollution is therefore an important issue to protect people from adverse estrogenic effects of the pollutant.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
17 $\beta$ -Estradiol EIA Kit	Environmental water Culture supernatant	16.5 - 4000 pg/mL	Competitive	YII-YK170-EX	96 well (8 well x 12)
Estrone EIA Kit	Environmental water Culture supernatant	4.8 - 5000 pg/mL	Competitive	YII-YK180-EX	96 well (8 well x 12)

Component: Antibody, Antibody coated plate, Standard, Label, Substrate, Others

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# Quantitative determination kits for Biomarkers

Simple & Rapid

High specificity

Sensitive quantification

## Obesity/Diabetes

**C-Peptide & Insulin** Processing of proinsulin occurs within B cells to yield Insulin and C-peptide. Insulin and C-peptide are secreted in equimolar quantities into blood circulation. Therefore, the measurement of C-peptide and insulin in blood provides valuable information to evaluate pancreatic B cell function.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
C-peptide EIA Kit (Rat)	Culture supernatant/Plasma Serum/Urine	1.56-50 ng/mL	Competitive	YII-YK010-EX	96 well (8 well x 12)
C-peptide EIA Kit (Mouse)	Plasma/Serum	0.412-100 ng/mL	Competitive	YII-YK013-EX	96 well (8 well x 12)
C-peptide I EIA Kit (Mouse)	Plasma/Serum/Urine	0.617-50 ng/mL	Competitive	YII-YK011-EX	96 well (8 well x 12)
C-peptide II EIA Kit (Mouse)	Plasma/Serum/Urine	0.412-100 ng/mL	Competitive	YII-YK012-EX	96 well (8 well x 12)
Insulin ELISA Kit (Human/Rabbit/Canine)	Serum	0.137-100 ng/mL	Sandwich	YII-YK060-EX	96 well (8 well x 12)

Component: Antibody, Antibody coated plate, Standard, Label, Substrate, Others

**Leptin** Leptin, a product of ob gene, is a protein consisting of 167 amino acids and is secreted from white adipose tissue. Leptin acts on the hypothalamus to decrease food intake and reduce body weight, body fat, blood sugar and blood insulin in healthy and ob/ob mice. Leptin concentration in human plasma reflects the tissue fat weight.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
Leptin ELISA Kit (Rat)	Cell Culture/Plasma/Serum	78.1 - 5000 pg/mL (Cell culture) 312.5 - 20000 pg/mL (Plasma, Serum)	Sandwich	YII-YK050-EX	96 well (8 well x 12)
Leptin-HS ELISA Kit (Rat) HS: high sensitivity	Plasma/Serum	78.1 - 2500 pg/mL	Sandwich (high sensitivity)	YII-YK051-EX	96 well (8 well x 12)
Leptin ELISA Kit (Mouse)	Serum	0.313-20 ng/mL	Sandwich	YII-YK052-EX	96 well (8 well x 12)

Component: Antibody, Antibody coated plate, Standard, Label, Substrate, Others

**Peptide YY** PYY was initially isolated from the extract of pig duodenum and is a polypeptide consisting of 36 amino acid residues. PYY is homologous to pancreatic polypeptide (PP) and neuropeptide Y (NPY). PYY is localized mainly in endocrine cells of the intestine (ileum, colon, and rectum) showing an inhibitory action on contraction of the gastrointestinal tract and on secretion of pancreatic and gastric juice. PYY is released by taking diet. The PYY level decreases after resection of the intestine possibly due to the decrease in number of the endocrine cells secreting PYY.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
PYY EIA Kit (Human)	Plasma/Serum	0.082 - 20 ng/mL	Competitive	YII-YK080-EX	96 well (8 well x 12)
PYY EIA Kit (Mouse/Rat)	Plasma/Serum	0.15 - 12.5 ng/mL	Competitive	YII-YK081-EX	96 well (8 well x 12)

Component: YII-YK080-EX / Antibody coated plate, Standard, Label, Substrate, Others  
YII-YK081-EX / Antibody, Antibody coated plate, Standard, Label, Substrate, Others



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## Obesity/Diabetes

**Glucagon** The antibody against the C-terminal fragment (19-29) of glucagon specifically binds with pancreatic glucagon, whereas the antibody against the N-terminal fragment (1-19) of glucagon specifically binds with both of pancreatic and intestinal glucagon (total glucagon). Nishino, Shima and Yanaihara et. al succeeded in producing pancreatic glucagon specific antibody using synthetic peptide with the C-terminal fragment (19-29) of glucagon as immunogen in 1981.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
Glucagon EIA Kit (Rat/Human/Mouse)	Plasma	50 - 10000 pg/mL	Competitive	YII-YK090-EX	96 well (8 well x 12)

Component: Antibody coated plate, Standard, Label, Substrate, Others

**Glicentin** Glicentin is a 69-amino-acid peptide containing glucagon and oxyntomodulin sequences in the molecule. In mammalian small intestine, proglucagon is processed into glicentin, oxyntomodulin, and glucagon-like peptide 1 (GLP-1) and glucagon-like peptide 2 (GLP-2).

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
Glicentin EIA Kit (Rat)	Plasma	0.206-50 pmol/mL	Competitive	YII-YK111-EX	96 well (8 well x 12)
GLP-2 EIA Kit (Rat)	Plasma/Serum	0.137 - 100 ng/mL	Competitive	YII-YK140-EX	96 well (8 well x 12)
GLP-2 EIA Kit (Human)	Plasma/Serum	0.412-100 ng/mL	Competitive	YII-YK141-EX	96 well (8 well x 12)
GLP-2 EIA Kit (Mouse)	Plasma/Serum	0.412-100 ng/mL	Competitive	YII-YK142-EX	96 well (8 well x 12)
GLP-1 EIA Kit (Rat/Human/Mouse)	Plasma	0.206-50 ng/mL	Competitive	YII-YK160-EX	96 well (8 well x 12)

Component: Antibody, Antibody coated plate, Standard, Label, Substrate, Others

**Obestatin** Obestatin is a 23 amino acid residues peptide isolated from the rat stomach. The peptide shares the precursor with a food intake stimulating peptide, ghrelin, but possesses reducing effects on food intake, gut motility and body weight. The obestatin concerning study for energy homeostasis and body weight regulation could largely develop in the future.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
Obestatin EIA Kit (Mouse/Rat)	Serum	0.082 - 20 ng/mL	Competitive	YII-YK230-EX	96 well (8 well x 12)
Obestatin EIA Kit (Human)	Plasma/Serum	0.231 - 25 ng/mL	Competitive	YII-YK231-EX	96 well (8 well x 12)

Component: Antibody, Antibody coated plate, Standard, Label, Substrate, Others

**NOS** NO synthase-I (NOS) is localized in various tissues and cells such as neural tissues, renal macula densa cells, pancreatic beta cells and skeletal muscles. NOS is involved in the synthesis of NO.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
NO Synthase-I EIA Kit (Human/Rat)	Tissue extract	0.133-324 pmol/mL	Competitive	YII-YK100-EX	96 well (8 well x 12)

Component: Antibody, Antibody coated plate, Standard, Label, Substrate, Others

## Stress/Tumor/Aging

**Urocortin** Urocortin 1, 2 and 3 are novel predicted neuropeptides related to corticotropin-releasing factor (CRF). CRFs secreted from hypothalamus control the stress machinery through secretion of steroid hormone by stimulation of ACTH release from hypothalamus.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
Urocortin 1 EIA Kit (Mouse/Rat)	Plasma/Serum	1.563-100 ng/mL	Competitive	YII-YK210-EX	96 well (8 well x 12)
Urocortin 2 EIA Kit (Mouse)	Plasma/Serum	0.82 - 200 ng/mL	Competitive	YII-YK190-EX	96 well (8 well x 12)
Urocortin 2 EIA Kit (Rat)	Plasma/Serum	1.56-100 ng/mL	Competitive	YII-YK191-EX	96 well (8 well x 12)
Urocortin 3 EIA Kit (Mouse/Rat)	Plasma/Serum Brain tissue extract	0.41-100 ng/mL	Competitive	YII-YK200-EX	96 well (8 well x 12)

Component: Antibody coated plate, Standard, Label, Substrate, Others

**Chromogranin** Chromogranin A (CgA) is an acidic secretory protein consisting of 439 amino acids in human. The protein is found in a wide variety of hormones and neurotransmitter storage vesicles, and is known to be co-stored and co-released with catecholamines from adrenal medulla and sympathetic neuronal vesicles during exocytosis.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
Chromogranin A EIA Kit (Human)	Plasma/Urine/Saliva	0.14 - 33.33 pmol/mL	Competitive	YII-YK070-EX	96 well (8 well x 12)

Component: Antibody, Antibody coated plate, Standard, Label, Substrate, Others

**Corticosteron** Corticosterone is a glucocorticoid hormone secreted from the cortex of adrenal gland. Corticosterone is derived from cholesterol through a series of enzymatically mediated steps and also serves as a precursor of aldosterone. Corticosterone is produced under the control of ACTH and its production has a circadian rhythm with peak levels in the latter portion of the day in nocturnal animals like rats. It is believed to play a decisive role in sleep-wake cycles. Corticosterone can be used as a non-invasive biomarker of stress study through the collection of urine and feces to avoid corticosterone increase of blood levels which is caused by normal invasive methods. Corticosterone is also being studied in different fields such as impairment of long-term memory retrieval, chronic corticosterone elevation due to dietary restrictions and response to burn injuries etc.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
Corticosterone EIA Kit (Mouse/Rat)	Plasma/Serum/Urine Cell or tissue culture supernatant	0.21 - 50 ng/mL	Competitive	YII-YK240-EX	96 well (8 well x 12)

Component: Antibody, Antibody coated plate, Standard, Label, Substrate, Others

**CRF** Corticotropin releasing factor (CRF, also CRH) was initially isolated from ovine hypothalamus, and identified as a novel neuropeptide comprising 41 amino acid residues with molecular weight 4758. CRF in anterior pituitary promotes the synthesis and secretion of ACTH, a main factor of hypothalamus-pituitary-adrenal (HPA) axis. In rat and human, CRF distributes mainly in the hypothalamus, but is also found in the spinal cord, stomach, spleen, duodenum, adrenal and placenta. In addition, immunochemical evidence supported the wide distribution of the peptide throughout the central nervous system (CNS) such as olfactory bulb, retina and central auditory system in the rat.

Product name (Species)	Sample	Assay range	Application	Catalog No.	Size
CRF-HS ELISA Kit (Mouse/Rat)	Plasma/ Brain tissue extract	0.078- 2.5 ng/mL	Sandwich	YII-YK131-EX	96 well (8 well x 12)
CRF-HS ELISA Kit (Human)	Plasma	0.078- 2.5 ng/mL	Sandwich	YII-YK132-EX	96 well (8 well x 12)

Component: Antibody, Antibody coated plate, Standard, Label, Substrate, Others