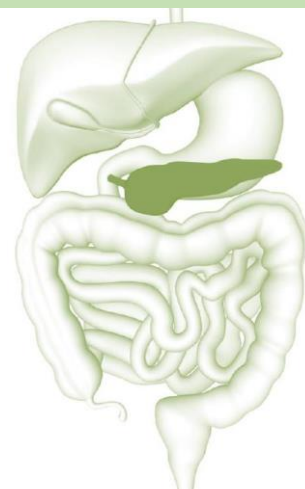


Highlights : Glucagon

Dear Valued Customers,
We hope this newsletter finds you well. This Newsletter highlights about **Glucagon** and how important to detect specific Glucagon (1-29).



Type 2 diabetes, around **95%** of all diabetics, is caused by decreased insulin secretion and insulin resistance. **Insulin** is a hormone secreted by the beta cells of the pancreas, which **lowers blood glucose levels** by drawing sugar from the blood into the body. On the other hand, glucagon is a hormone secreted from the alpha cells of the same pancreas and **increases blood glucose levels** by increasing the production of sugar in the liver. Insulin and glucagon are considered "**antagonistic hormones**" because they maintain constant blood glucose levels by balancing each other.

Glucagon-centric theory (PMID: 22214853)

The presence of a certain amount of glucagon, rather than the presence or absence of insulin, may contribute to elevated blood glucose levels, and the "**glucagon-centric theory**" was published in 2012 by Unger, Cherrington, and colleagues.

[Unger RH, Cherrington AD. Glucagonocentric restructuring of diabetes: a pathophysiologic and therapeutic makeover. J Clin Invest. 2012 Jan;122\(1\):4-12. doi: 10.1172/JCI60016. Epub 2012 Jan 3.](#)

New Products !

Glucagon ELISA Kit and Antibody

Glucagon ELISA Kit (#27797)

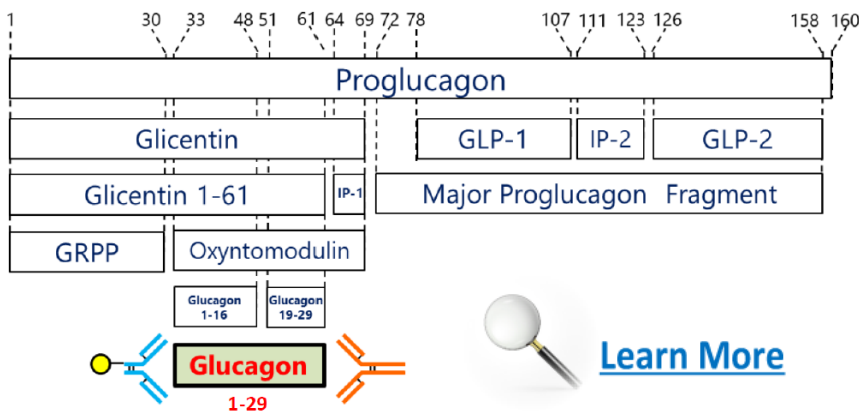
- Sample : EDTA plasma
- Measurement range : 0.31 ~ 20 pmol/L
- Dilution ratio : x2
- Sensitivity : 0.05 pmol/L

Anti-Glucagon (52A1A) Rat IgG MoAb (#10505)

- Application : IHC
- Package size : 5µg, 50µg
- Species : Human

IBL has successfully developed a **highly sensitive** and **specific** ELISA using novel N- and C-terminal specific paired antibodies.

Detecting specific Glucagon(1-29) is very important because it has been reported that some diabetic patients with impaired glucose tolerance have high levels of glicentin (one of glucagon-like hormone) in their blood.



| Peptide | Cross reactivity |
|------------------------|------------------|
| Glucagon(3-29) | N.D |
| Oxyntomodulin | 0.06% |
| Glicentin(1-61) | 0.05% |
| Glicentin(1-69) | N.D |
| Glucagon (19-29) | N.D |
| GLP-1(7-36)amide | 0.02% |
| GLP-1(9-36)amide | 0.01% |
| GLP-2 | <0.01% |
| GIP(1-42) | <0.01% |
| GIP(3-42) | <0.01% |

Assume 100% reaction with glucagon (1-29)

Aging, Neurodegenerative
Alzheimer's disease (AD) etc.

Kidney Diseases
CKD, AKI, IgA Nephropathy (IgAN), Hypertension, etc.

Inflammatory Diseases
Cancers, Arthritis, Hepatitis, etc.

Glucose / Lipid Metabolism
Diabetes, Hyperlipidemia, Cardiovascular Events, etc.