YK140 Rat GLP-2 EIA Kit

I. Introduction

The proglucagon gene is expressed in both pancreatic A cell and intestinal L cell. Tissue-specific posttranslational processing of proglucagon by the prohormone convertase produced the different proglucagon derived peptides (PGDPs) in both pancreas and intestine. The most notable pancreatic PGDP is glucagon, whereas the L cell produces several structurally related peptides, including glucagon-like peptide 1 (GLP-1) and GLP-2, as well as glicentin and oxyntomodulin, which contain glucagon sequence in their molecules. Among PGDPs, GLP-2 has recently been found to show intestinal epithelial proliferation.

YK140 Rat GLP-2 EIA Kit

- ▼ The assay kit can measure GLP-2 in the range of 0.137 - 100 ng/mL
- ▼ The assay completes within 16-18 hr. +1.5 hr.
- ▼ With one assay kit, 40 samples can be measured in duplicate
- ▼ Test sample: rat serum or plasma
  Sample volume: 25 µL
- ▼ The 96-well plate in kit was consisted by 8-wells strips. The kit can be used separately.
- ▼ Precision and reproducibility

  Intra-assay CV (%) serum 3.5 - 8.9
  Inter-assay CV (%) serum 7.6 - 13.0

  Intra-assay CV (%) plasma 3.1 - 7.2
  Inter-assay CV (%) plasma 6.7 - 11.5
- ▼ Stability and Storage
  Store all of the components at 2-8℃.
  12 months from the date of manufacturing.
  The expiry date is described on the label of kit.

Contents

1) Antibody coated plate
2) Rat GLP-2 standard
3) Labeled antigen
4) Rat GLP-2 antibody
5) SA-HRP solution
6) Substrate buffer
7) OPD tablet
8) Stopping solution
9) Buffer solution
10) Washing solution (concentrated)
11) Adhesive foil

II. Characteristics

Ⅱ. Characteristics

This EIA kit is used for quantitative determination of rat GLP-2 in serum or plasma samples. The kit is characterized for sensitive quantification, high specificity and no influences with other components in samples. Rat GLP-2 standard is highly purified synthetic product.

< Specificity >

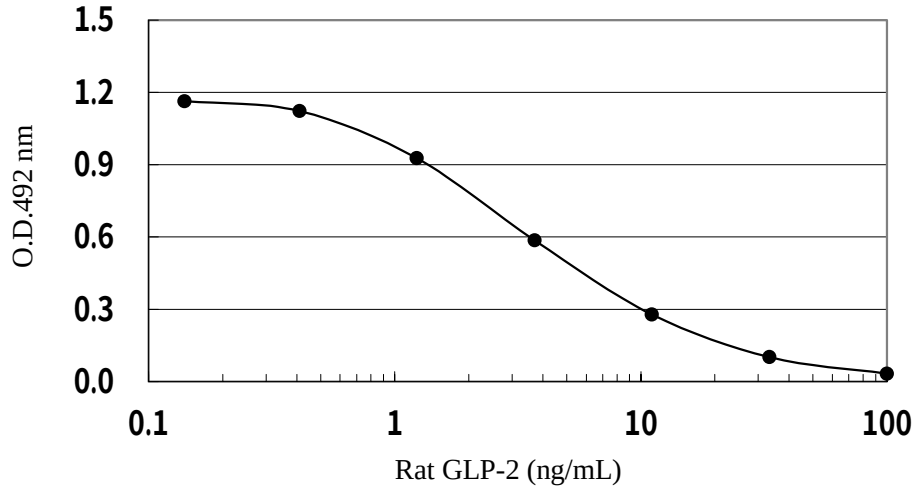
The EIA kit has high specificity to rat GLP-2 and shows no cross reactivity with rat glucagon and rat GLP-1 even in the concentration of 300 pmol/mL.

< Test Principle >

This EIA kit for determination of rat GLP-2 in serum or plasma samples is based on a competitive enzyme immunoassay using combination of highly specific antibody to rat GLP-2 and biotin-avidin affinity system. The 96-wells plate is coated with goat anti rabbit IgG antibody. Rat GLP-2 standard or samples, labeled antigen and anti rat GLP-2 polyclonal antibody are added to the wells for competitive immunoreaction. After incubation and plate washing, HRP labeled streptoavidin (SA-HRP) are added to form HRP labeled streptoavidin-biotinylated rat GLP-2-antibody complex on the surface of the wells. Finally, HRP enzyme activity is determined by o-Phenylenediamine dihydrochloride (OPD) and the concentration of rat GLP-2 is calculated.

III. Performance Characteristics

Typical standard curve



Analytical recovery

< Rat serum >

Sample No.	Rat GLP-2 added ng/mL	Observed ng/mL	Expected ng/mL	Recovery (%)
1	0	2.55	-	-
2	1	3.59	3.29	109.0
3	5	8.11	7.29	111.2
4	20	27.08	22.29	122.8

< Rat plasma >

Sample No.	Rat GLP-2 added ng/mL	Observed ng/mL	Expected ng/mL	Recovery (%)
1	0	2.90	-	-
2	1	3.89	3.61	107.8
3	5	8.28	7.61	108.7
4	20	26.85	22.61	118.7

Precision and reproducibility

- Intra-assay/Rat serum CV (%) 3.5 ～ 8.9
- Inter-assay/Rat serum CV (%) 7.6 ～ 13.0
- Intra-assay/Rat plasma CV (%) 3.1 ～ 7.2
- Inter-assay/Rat plasma CV (%) 6.7 ～ 11.5

Assay range

0.137 ~ 100 ng/mL

IV. Stability and Storage

< Storage > Store all of the components at 2-8℃.

< Shelf life > 12 months from the date of manufacturing
The expiry date is described on the label of kit.

< Package > For 96 tests per one kit including standards

V. References

1. Philippe, J.: Structure and pancreatic expression of the insulin and glucagon gene. *Endocr Rev* **12**: 252 - 271, 1991

2. Mojsov S. et al: Preproglucagon gene expression in pancreas and intestine diversifies the level of post-transcriptiona processing. *J Biol Chem* **261**: pp11880 – 11889, 1986

3. Drucker, D. J. et al: Induction of intestinal epithelial proliferation by glucagon-like peptide 2. *Proc Natl Acad Sci USA* **93**: 7911 – 7916, 1996

<Manufacturer>
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