

YK142 Mouse 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(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.

YK142 Mouse GLP-2 EIA Kit	Contents
The assay kit can measure GLP-2 in the range of 0.412 - 100 ng/mL	1) Antibody coated plate
The assay completes within 16-18 hr. + 1.5 hr.	2) Mouse GLP-2 standard
With one assay kit, 41 samples can be measured in duplicate	3) Labeled antigen
Test sample: mouse serum or plasma	4) Rat GLP-2 antibody
Sample volume: 25 µL	5) SA-HRP solution
The 96-well plate in kit was consisted by 8-wells strips. The kit can be used separately.	6) Substrate buffer
Precision and reproducibility	7) OPD tablet
Intra-assay CV (%) serum 4.9 - 8.8	8) Stopping solution
Inter-assay CV (%) serum 11.0-14.7	9) Buffer solution
Intra-assay CV (%) plasma 3.5 - 6.0	10) Washing solution (concentrated)
Inter-assay CV (%) plasma 4.9 -16.0	11) Adhesive foil
Stability and Storage	
Store all of the components at 2-8 °C .	
12 months from the date of manufacturing.	
The expiry date is described on the label of kit.	

II. Characteristics

This EIA kit is used for quantitative determination of mouse GLP-2 in serum or plasma samples. The kit is characterized for sensitive quantification, high specificity and no influence with other components in serum or plasma and needlessness of sample pre-treatment. Mouse GLP-2 standard is highly purified synthetic product.

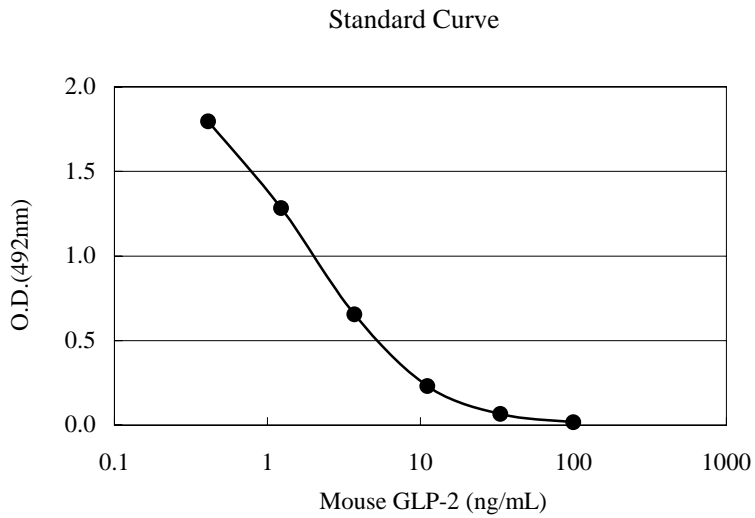
< Specificity >

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

< Test Principle >

This EIA kit for determination of mouse GLP-2 in serum or plasma samples is based on a competitive enzyme immunoassay using combination of highly specific antibody to rat GLP-2 (strong cross reactivity to mouse GLP-2) and biotin-avidin affinity system. The 96-wells plate is coated with goat anti rabbit IgG antibody. Mouse 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 streptavidin (SA-HRP) are added to form HRP labeled streptavidin-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 mouse GLP-2 is calculated.

III. Performance Characteristics



Analytical recovery

< Mouse serum >

Sample No.	Mouse GLP-2 added (ng/mL)	Observed (ng/mL)	Expected (ng/mL)	Recovery (%)
1	0	0.98		
2	2	2.80	2.98	94.0
3	5	5.59	5.98	93.5
4	20	20.24	20.98	96.5

< Mouse plasma >

Sample No.	Mouse GLP-2 added (ng/mL)	Observed (ng/mL)	Expected (ng/mL)	Recovery (%)
1	0	1.13		
2	2	2.89	3.13	92.3
3	5	5.73	6.13	93.5
4	20	22.36	21.13	105.8

Precision and reproducibility

- Intra-assay/Mouse serum CV (%) 4.9-8.8
- Inter-assay/Mouse serum CV (%) 11.0-14.7
- Intra-assay/Mouse plasma CV (%) 4.2-6.0
- Inter-assay/Mouse plasma CV (%) 4.9-16.0

Assay range

0.412-100 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 genes. *Endocr Rev* **12**: 252-271,1991
2. Mojsov S. et al: Preproglucagon gene expression in pancreas and intestine diversifies the level of post-transcriptional processing. *J Biol Chem* **261**: 11880-11889,1986
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
4. Brubaker PL, et al: Circulating and tissue forms of intestinal growth factor, glucagon-like peptide 2. *Endocrinology* **15**: 673-677,1997
5. Drucker D. J.: Perspective in diabetes Glucagon-like peptides. *Diabetes* **47**: 159-169, 1998
6. Xiao Q, et al: Secretion of the intestinotropic hormone glucagon-like peptide 2 is differentially regulated by nutrients in humans. *Gastroenterology* **117**: 99-105,1999
7. Kato I, et al: Synthesis of Rat Glucagon-like peptide(GLP)-2 and its biological and immunochemical studies. *Peptide Science* **1999**: N.Fujii(Ed). The Japanese Peptide Society (2000)

<Manufacturer>

Yanaihara Institute Inc.

2480-1 Awakura, Fujinomiya-shi

Shizuoka, Japan 418-0011

TEL: +81-544-22-2771 FAX: +81-544-22-2770

Website: <http://www.yanaihara.co.jp> E-mail: ask@yanaihara.co.jp

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