

Marker for Diabetes (Incretin) GLP-1/GIP Assay Kits (96Well)

- Research Use Only -

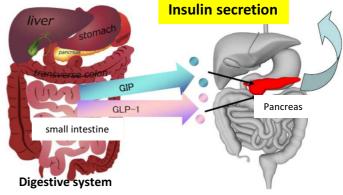
[Host] H: Human M: Mouse R: Rat

Product No.	Host	Product name	Measurement range (pmol/mL)	Measuring samples
27201	Н	Human GIP, Active form Assay Kit - IBL	0.31 – 20.07	
27764	М	Mouse GIP, Active form Assay Kit - IBL	1.56 – 100	EDTA-plasma
27202	R	Rat GIP, Active form Assay Kit - IBL	0.47 – 30	(DPP-IV inhibitor has to be added.)
27203	Н	Human GIP, Total Assay Kit - IBL	1.88 – 120	
27204	М	Mouse GIP, Total Assay Kit - IBL	12.5 – 800	EDTA-plasma, Cell Culture Supernatant
27205	R	Rat GIP, Total Assay Kit - IBL	2.34 – 150	Supornatant
27784	H/M/R	GLP-1, Active form Assay Kit – IBL	1.25 – 80	EDTA-plasma (DPP-IV is contained.)
27788	H/M/R	GLP-1 (9-36/37) Assay Kit - IBL	1.25 – 80	EDTA-plasma (DPP-IV inhibitor is not required.) Cell Culture Supernatant

Type of Incretin and its function

GLP-1 (Glucagon-like peptide-1) is the peptide originated from proglucagon sequence as glucagon. It is secreted from L cell of lower part of small intestine and GLP-1 has been known that it has multiple functions such as enhancing secretion of insulin from beta cell of pancreas islet tissue, inhibiting secretion of glucagon, function of stomach excretion and central anorectic effect. GLP-1 (7-37/7-36 amide), Active form is rapidly metabolized to GLP-1 (9-37/9-36 amide), Inactive form in blood.

GLP-1 (7-37/7-36 amide) Active form→GLP-1(9-37/9-36 amide) Inactive form



GIP (glucose-dependent insulinotropic polypeptide) is stimulated by lipid and secreted from K cell of duodenum. GIP enhances secretion of insulin from beta cell of pancreas islet tissue as same as GLP-1. GIP englucose activhances ation of lipid metabolic enzyme "LPL" and it is also considered to induce obesity because of accelerating absorption of glucose by adipocyte under dependent of insulin. GIP (1-42), Active form is rapidly metabolized to GIP (3-42), Inactive form by DPP4 in blood. GIP (1-42) Active form → GIP(3-42) Inactive form

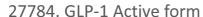
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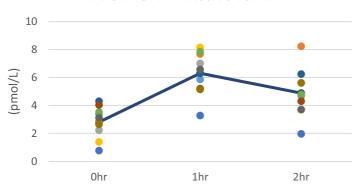
Blood samples can be measured by IBL's GLP-1 and GIP ELISA kits.

Useful tools for Incretin related drug development

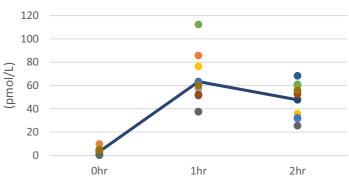
(i.e. Diabetes) and/or research of extrapancreatic function of Incretin.

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27201. Human GIP Active form



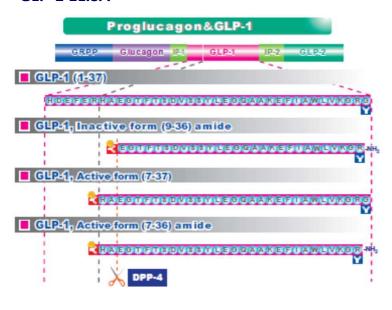
27788. GLP-1 (9-36/37)



27203. Human GIP Total



GLP-1 ELISA



GIP ELISA

DPP4

2 amino-acid residue at N terminal is deactivated by cleavage by DPP- 4 degradative enzyme

EGTFISD YSIAMDKIHQ QDFVNWLLAQ KGKKNDWKHN ITQ

hGIP (1-42) Active form

EGTFISD YSIAMDKIHQ QDFVNWLLAQ KGKKNDWKHN ITQ

hGIP (3-42) Inactive form



Specificity

"Total GIP" can detect Active/Inactive form

【#27784 - GLP-1, Active form】

Measured sample	Cross reactivity	
GLP-1 (7-36) amide	100%	
GLP-1 (7-37)	100%	
GLP-1 (9-36) amide	<0.1%	
GLP-1 (1-37)	<0.32%	

【#27788 - GLP-1 (9-36/37) 】

100%

0.3%

N.D

Measured sample

GLP-1 (9-36/37)

GLP-1 Active form

GIP (3-42)

[#27201 Human GIP, Active form]

Measured sample	Cross reactivity
Human GIP (1-42)	100%
Human GIP (3-42)	<0.1%
Human Glucagon	<0.1%
Human GLP-1 (7-36) amide	<0.1%

[#27203 Human GIP, Total]

Measured sample	Cross reactivity
Human GIP (1-42)	100%
Human GIP (3-42)	100%
GIP (1-30) amide	<0.1%
GLP-1(7-36)amide	<0.1%

[#27204 Mouse GIP, Active form]

Measured sample	Cross reactivity
Mouse GIP (1-42)	100%
Mouse GIP (3-42)	<0.1%
Mouse Glucagon	<0.1%
Mouse GLP-1 (7-36) amide	<0.1%

[#27764 Mouse GIP, Total]

Measured sample	Cross reactivity
Mouse GIP (1-42)	100%
Mouse GIP (3-42)	100%
Mouse GLP-1 (7-36) amide	<0.1%
Mouse Glucagon	<0.1%

【#27202 Rat GIP, Active form】

Measured sample	Cross reactivity
Rat GIP (1-42)	100%
Rat GIP (3-42)	<0.1%
Rat Glucagon	<0.1%
Rat GLP-1 (7-36) amide	<0.1%

[#27205 Rat GIP, Total]

Measured sample	Cross reactivity
Rat GIP (1-42)	100%
Rat GIP (3-42)	100%
Rat GLP-1 (7-36) amide	<0.1%
Rat Glucagon	<0.1%