

Biology and Disease

Glucagon-Like Peptide-1 (GLP-1) is a member of the incretin family of hormones, which are released by the gut into the bloodstream in response to food. Post-translational cleavage of the peptide produces active GLP-1, which is then rapidly degraded by protease dipeptidyl peptidase-4 (DPP-4). When blood glucose level is high, active GLP-1 enhances insulin secretion and also suppresses the release of glucagon. In addition, GLP-1 stimulates the brain to trigger feelings of satiety and regulates the rate of gastric emptying. Compared to healthy controls, some patients with type-2 diabetes show a modest decrease in GLP-1 release. Therapeutic GLP-1 analogs such as exenatide, or DPP inhibitors like sitagliptin, are promising strategies for treating type-2 diabetes.

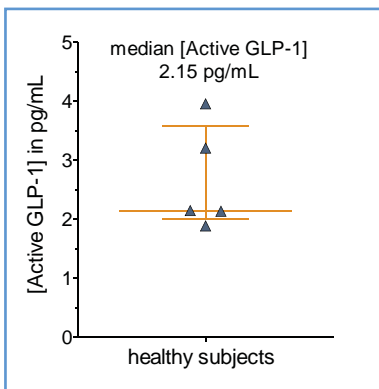
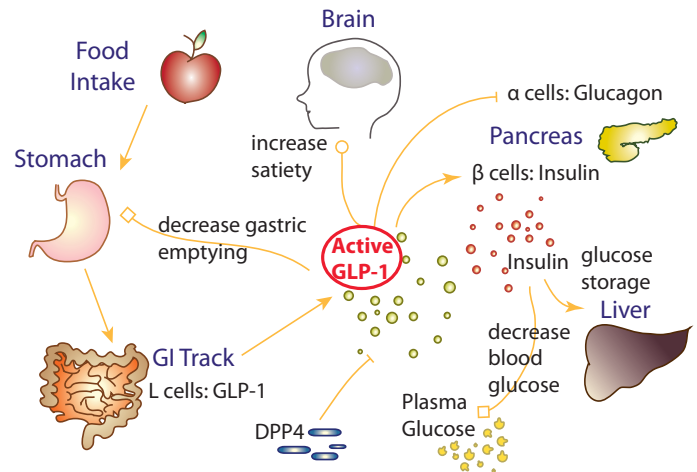


FIGURE 1: [Active GLP-1] in EDTA plasma (collected in p700 tubes) from 5 healthy subjects, with respective median and interquartile range.

The Erenna® Active GLP-1 (MP-based) Immunoassay Evaluation Reagent Kit reliably quantifies Active GLP-1 in EDTA plasma from healthy subjects, who have a median [Active GLP-1] of 2.15 pg/mL that is well above the detection limit of 0.04 pg/mL.

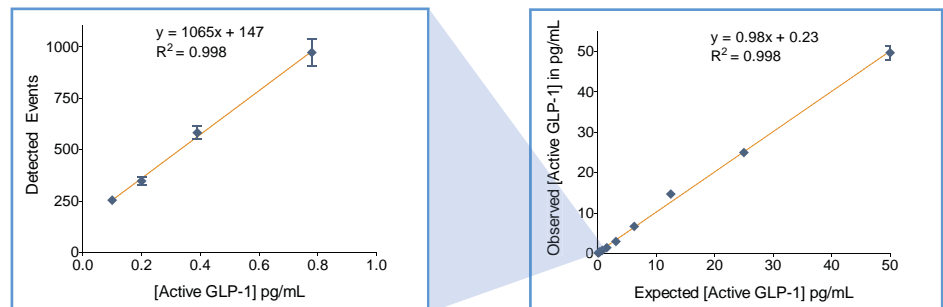


FIGURE 2: Erenna® Active GLP-1 (MP-based) Immunoassay Evaluation Reagent Kit low-end standard curve signal (left) and curve fit (right).

TABLE 1: Analytical sensitivity of the Erenna® Active GLP-1 (MP-based) Immunoassay Evaluation Reagent Kit¹

Lower Limit of Detection	0.04 pg/mL
Lower Limit of Quantification ²	0.2 pg/mL
Upper Limit of Quantification	50 pg/mL
Low-end CV% Range	2 - 12%
Low-end CV% Average	6%
Recommended Sample Volume	100 µL
Minimum Sample Volume Required ³	10 µL
Matrices Verified	human EDTA plasma

¹ see product insert for updated values

² LLoQ ≤ 20% CV and ± 20% recovery

³ based upon median [Active GLP-1] in a healthy reference population



Representative data shown for demonstration purposes only. Individual results may vary depending upon samples tested and protocol used.