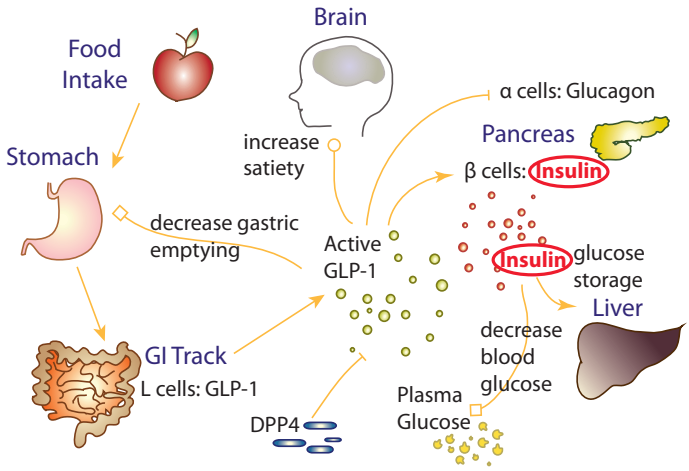
Erenna® Insulin (Mouse, Plate-based) Immunoassay Kit
Cat. # 03-0006-xx

Singulex®

Biology and Disease

Insulin is an important metabolic hormone produced by islet cells within the pancreas whose primary function is to regulate blood sugar levels in the body. When blood glucose level is high (ie. after food ingestion), insulin increases glucose uptake and forces liver cells to convert glucose to glycogen for storage. Insulin is also known to promote glycolysis, fatty acid synthesis and amino acid uptake. Patients who do not produce sufficient insulin (Type 1) or become resistant to insulin (Type 2) develop diabetes mellitus and suffer from hyperglycemia, which can lead to complications such as blindness, cardiovascular disease, and kidney damage. Many insulin analogs, which mimic either normal or rapid-acting (ie. lispro) insulin functions have been developed as treatment for diabetes.



The Erenna® Mouse Plate-based Insulin Immunoassay Kit offers superior linearity, robust precision (CV ≤ 20%) and excellent recovery (± 20%) as opposed to other commercially available ELISAs, allowing for accurate measurement of insulin in mouse.

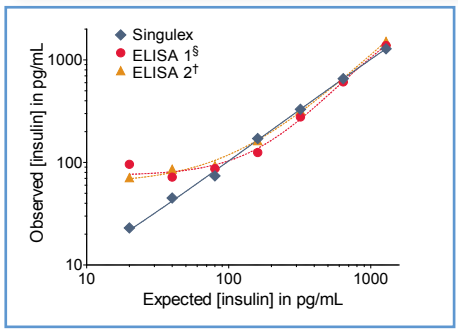


FIGURE 1: Assay linearity among the Erenna® Mouse Plate-based Insulin Immunoassay Kit and two other commercial ELISA Kits.

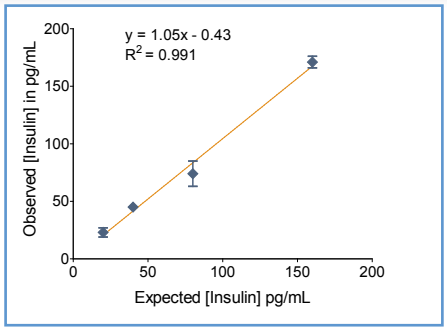


FIGURE 2: The Erenna® Mouse Plate-based Insulin Immunoassay Kit correlation curve.

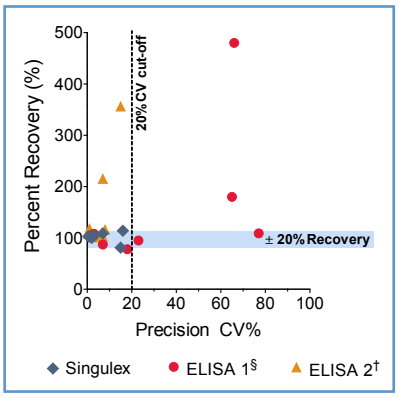


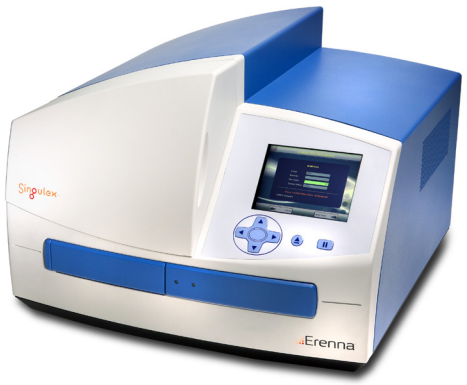
FIGURE 3: Unlike two other commercial ELISAs, the Erenna® Mouse Plate-based Insulin Immunoassay Kit shows good precision and recovery.

§ ELISA 1: HRP plate-based, 5 µL assay volume
† ELISA 2: HRP plate-based, 10 µL assay volume

TABLE 1: Analytical sensitivity of the Erenna® Mouse Plate-based Insulin Immunoassay Kit[1]

Lower Limit of Detection	12 pg/mL
Lower Limit of Quantification[2]	20 pg/mL
Upper Limit of Quantification	1280 pg/mL
Low-end CV% Range	3 - 16%
Low-end CV% Average	13%
Assay Volume	5 µL

[1] see product insert for updated values
[2] LLoQ ≤ 20% CV and ± 20% recovery



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

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