

INSULIN (human) ELISA kit

INSULIN (human) ELISA kit #A05322

- ◆ Broadest Standard Curve Range
- ◆ High sensitivity
- ◆ Versatile assay for all your samples



Insulin is a polypeptide composed of 51 amino acids divided into two chains (A and B) linked by disulfide bonds. Both chains are organized as an alpha helix. Insulin is produced by the beta cells of the pancreatic islets in the form of a precursor (preproinsulin) and is modified to obtain the pro-insulin (peptide signal elimination) and finally insulin (peptide C elimination).

The main function of the insulin is the regulation of the glucose concentration in the organism. The dysregulation of the production of insulin induced many disorders including diabetes.

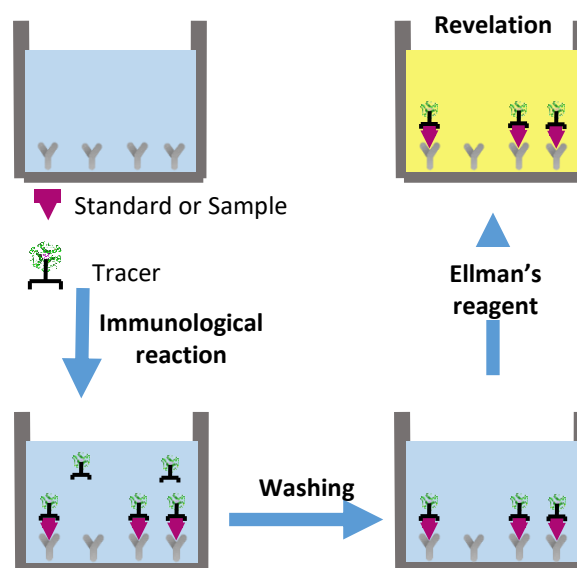
FOCUS ON THE ASSAY

This immunoassay is based on a sandwich technique.

Wells of a supplied plate are coated with a monoclonal antibody specific to insulin.

Insulin is introduced in the wells where it is bound by the monoclonal antibody coated on the plate. Insulin is then detected by an insulin-specific monoclonal antibody tagged with acetylcholinesterase (AChE). The two antibodies thus form a sandwich by binding on different epitopes of the insulin.

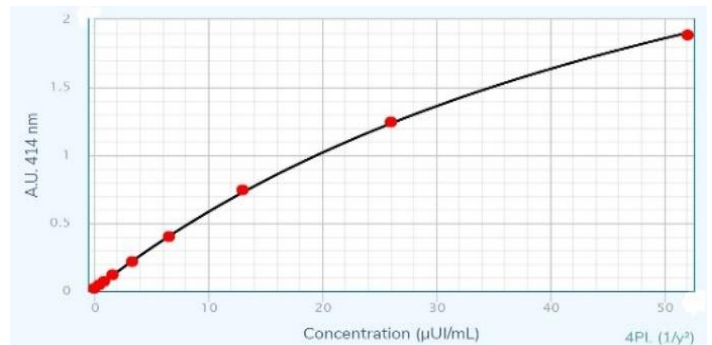
The concentration of insulin is determined by measuring the enzymatic activity of an immobilized tracer using Ellman's reagent. AChE tracer acts on Ellman's Reagent to form a yellow compound that strongly absorbs at 405 nm or at 414 nm.



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TECHNICAL DATA

- **Size:** 96 wells
- **QC included:** strip plates and additional reagents allow for use in multiple experiments
- **Shipping:** Dry ice
- **Sample volume:** 5µL
- **Validated species:** human
- **Stability:** store at +4°C
- **Limit of detection:**
 - LOD ≤ 0.3 µIU/mL
 - LOD ≤ 11.5pg/mL
- **Standard curve range:**
 - 0.4 µIU/mL - 52 µIU/mL
 - 15.4 pg/mL – 2000 pg/mL
- **Specificity:**
 - Pig Insulin: 100%
 - Human Pro-Insuline: not detected
 - Human C-Peptide: not detected
- **Media application:** cell culture, supernatant, serum, plasma



RELATED PRODUCTS

- Insulinase Inhibitor Cocktail cat #D05011
- Insulin (mouse, rat) ELISA kit cat #A05105
- Unacylated Ghrelin (human) Easy Sampling ELISA kit cat #A05319
- Acylated Ghrelin (human) Easy Sampling ELISA kit cat #A05306
- Unacylated Ghrelin (mouse, rat) Easy Sampling ELISA kit cat #A05318
- Acylated Ghrelin (mouse, rat) Easy Sampling ELISA kit cat #A05317