

## 10 mg/mL Recombinant Human Insulin Solution

Cat. No. : PB180432

Size: 1mL/1mL×5/1mL×10

### General Information

<b>Product Form</b>	Liquid
<b>Concentration</b>	10 mg/mL
<b>pH</b>	2.0-3.5
<b>Endotoxin</b>	<3 EU/mL
<b>Dissolvent</b>	Citrate buffer
<b>Storage</b>	-5~-20°C, shading light
<b>Shipping</b>	Ice bag
<b>Expiration date</b>	12 months

### Background

Insulin is a double-stranded ( $\alpha$ ,  $\beta$ ) peptide hormone secreted by islet  $\beta$  cells. Insulin functions of different species (human, cattle, sheep, pig, etc.) are generally the same, and the composition is slightly different. Insulin is currently known the only hormone in the body that lowers blood sugar, and the only hormone that simultaneously promotes glycogen, fat, and protein synthesis. Insulin plays an important role in many cellular activities. It is a commonly used substance in mammalian cell culture. Insulin can accelerate the use of glucose and inhibit the production of glucose, inhibit the decomposition of fat, promote the synthesis and storage of fat, promote the synthesis of protein, prevents the breakdown of proteins, promotes potassium and magnesium ions to pass through the cell membrane into the cell, promotes the synthesis of deoxyribonucleic acid (DNA), ribonucleic acid (RNA) and adenosine triphosphate (ATP).

Recombinant human insulin, produced by E. coli expression system by Elabscience, has a molecular weight of about 5800 Da and has the same structure as human insulin of natural origin. It is often used as an auxiliary component in cell culture. The recommended concentration is 1-10  $\mu$ g/mL.

### Notes

1. This product is for research use only.
2. This product is sterilized by 0.1  $\mu$ m filtration.
3. It is necessary to pay attention to the aseptic operation and avoid the contamination.
4. The concentration of this product is 10 mg/mL and dilute it to the desired concentration before use.
5. It is not suitable for long time storage at room temperature.
6. Thaw in 2-8°C and mix fully before use. Avoid repeated freezing and thawing. It is recommended to aliquot the solution into smaller quantities for optimal storage. It can be stored at 2-8°C with shading light for 6 months.
7. If there is precipitation after dissolution, it can be dissolved after the solution is placed at room temperature for a period of time. If the precipitation is insoluble, slowly adjust the pH to 2-3 with sterile 0.1 M HCl.