



# Anti-Insulin polyclonal antibody (CPBT-67336GA)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

### Product Overview

Guinea pig anti Pig insulin antibody recognizes porcine insulin, a hormone secreted by the beta cells of the islets of Langerhans in the pancreas. Insulin belongs to a family of hormones including the insulin-like growth hormones and the relaxins. The insulin precursor is a 108 amino acid polypeptide consisting of a 24 aa signal peptide, an insulin A chain, a prohormone polypeptide (also known as the 'C chain') and an insulin B chain together having a predicted molecular mass of 11,672 Da. Active insulin migrates with an apparent molecular mass of 6kDa in western blotting of porcine, bovine and lapine samples. Insulin is a hormone that functions in carbohydrate homeostasis, and acts to decrease blood glucose concentration by increasing cell permeability to monosaccharides, amino acids and fatty acids, and accelerate glycolysis and glycogen synthesis in the liver, it induces uptake of glucose into cells through its interaction with the glucose transporter GLUT4. Deficiency of insulin results in diabetes mellitus, one of the leading causes of morbidity and mortality in the general population. Insulin is also present in tumours of B-cell origin such as insulinoma. Guinea pig anti pig insulin antibody has been successfully used to demonstrate the presence of insulin in the islets of Langerhans of murine pancreas using immunohistochemistry on paraffin embedded material.

<b>Specificity</b>	INS
<b>Target</b>	Insulin
<b>Immunogen</b>	Native.
<b>Isotype</b>	IgG
<b>Source/Host</b>	Guinea pig
<b>Species Reactivity</b>	Pig, Mouse
<b>Conjugate</b>	Unconjugated

<b>Applications</b>	IHC-Fr; ELISA; IHC-P
<b>Format</b>	Purified IgG - liquid
<b>Size</b>	50 µl
<b>Preservative</b>	0.09% Sodium Azide
<b>Storage</b>	in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">INS insulin [ Sus scrofa (pig) ]</a>
<b>Official Symbol</b>	INS
<b>Synonyms</b>	INS; insulin; proinsulin; preproinsulin;
<b>Entrez Gene ID</b>	<a href="#">397415</a>
<b>Protein Refseq</b>	<a href="#">NP_001103242</a>
<b>UniProt ID</b>	P01315
<b>Chromosome Location</b>	chromosome: 2
<b>Pathway</b>	AMPK signaling pathway; Aldosterone-regulated sodium reabsorption; FoxO signaling pathway; HIF-1 signaling pathway; Insulin secretion; Insulin signaling pathway; Maturity onset diabetes of the young; Non-alcoholic fatty liver disease (NAFLD);
<b>Function</b>	hormone activity; identical protein binding;