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# Rabbit Anti-Insulin Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52066

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | P01315 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 11672 |
| **Physical State** | Liquid |
| **Immunogen** | porcine pancreas , full length |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SUBCELLULAR LOCATION** | Secreted. |
| **SIMILARITY** | Belongs to the insulin family. |
| **SUBUNIT** | Heterodimer of a B chain and an A chain linked by two disulfide bonds. |
| **DISEASE** | Hyperproinsulinemia, familial (FHPRI) [MIM:176730]: An autosomal dominant condition characterized by elevated levels of serum proinsulin-like material. Note=The disease is caused by mutations affecting the gene represented in this entry. Diabetes mellitus, insulin-dependent, 2 (IDDM2) [MIM:125852]: A multifactorial disorder of glucose homeostasis that is characterized by susceptibility to ketoacidosis in the absence of insulin therapy. Clinical fetaures are polydipsia, polyphagia and polyuria which result from hyperglycemia-induced osmotic diuresis and secondary thirst. These derangements result in long-term complications that affect the eyes, kidneys, nerves, and blood vessels. Note=The disease is caused by mutations affecting the gene represented in this entry. Diabetes mellitus, permanent neonatal (PNDM) [MIM:606176]: A rare form of diabetes distinct from childhood-onset autoimmune diabetes mellitus type 1. It is characterized by insulin-requiring hyperglycemia that is diagnosed within the first months of life. Permanent neonatal diabetes requires lifelong therapy. Note=The disease is caused by mutations affecting the gene represented in this entry. Maturity-onset diabetes of the young 10 (MODY10) [MIM:613370]: A form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease. Note=The disease is caused by mutations affecting the gene represented in this entry. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | Insulin is one of the major regulatory hormones of intermediate metabolism throughout the body. The biological actions of this hormone involve integration of carbohydrate, protein, and lipid metabolism. Insulin enhances membrane transport of glucose, amino acids, and certain ions. It also promotes glycogen storage, formation of triglycerides and synthesis of |

proteins and nucleic acids. Immunocytochemical investigations have localized insulin in the B cells of pancreatic islets of Langerhans. 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 tumors of B cell origin such as insulinoma.

## Additional Information

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| **Gene ID** | 397415 |
| **Other Names** | Insulin; INS |
| **Dilution** | WB=1:500-2000,ELISA=1:5000-10000 |
| **Format** | 0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| **Name** | INS |
| **Function** | Insulin decreases blood glucose concentration. It increases cell permeability to monosaccharides, amino acids and fatty acids. It accelerates glycolysis, the pentose phosphate cycle, and glycogen synthesis in liver. |
| **Cellular Location** | Secreted. |

## Background

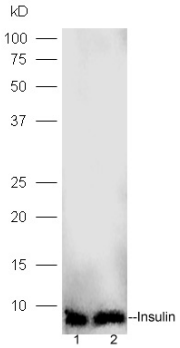
Insulin decreases blood glucose concentration. It increases cell permeability to monosaccharides, amino acids and fatty acids. It accelerates glycolysis, the pentose phosphate cycle, and glycogen synthesis in liver.

## References

Han X.G.,et al.Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
Amarger V.,et al.Mamm. Genome 13:388-398(2002).
Van Laere A.-S.,et al.Nature 425:832-836(2003).
Chance R.E.,et al.Science 161:165-167(1968).
Chance R.E.,et al.Submitted (JUL-1970) to the PIR data bank.

## Images

Lane 1: human islet alpha lysates Lane 2: human islet beta lysates probed with Rabbit Anti-Insulin Polyclonal Antibody, Unconjugated (AP52066) at 1:300 overnight at 4˚C. Followed by conjugation to secondary antibody at 1:5000 for 90 min at 37˚C.




Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.