

#4590 Store at -20C

## Insulin Antibody



**Cell Signaling**  
TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
IHC-P, IF-F, IF-IC, FC-FP	H M R	Endogenous	6	Rabbit	#P01308	3630

### Product Usage Information

#### Application

Immunohistochemistry (Paraffin)  
Immunofluorescence (Frozen)  
Immunofluorescence (Immunocytochemistry)  
Flow Cytometry (Fixed/Permeabilized)

#### Dilution

1:100  
1:100  
1:100  
1:100

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

### Specificity / Sensitivity

Insulin Antibody detects endogenous levels of total insulin protein.

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human insulin. Antibodies are purified by protein A and peptide affinity chromatography.

### Background

The maintenance of glucose homeostasis is an essential physiological process that is regulated by hormones. An elevation in blood glucose levels during feeding stimulates insulin release from pancreatic  $\beta$  cells through a glucose sensing pathway (1). Insulin is synthesized as a precursor molecule, proinsulin, which is processed prior to secretion. A- and B-peptides are joined together by a disulfide bond to form insulin, while the central portion of the precursor molecule is cleaved and released as the C-peptide. Insulin stimulates glucose uptake from blood into skeletal muscle and adipose tissue. Insulin deficiency leads to type 1 diabetes mellitus (2).

### Background References

1. Straub, S.G. and Sharp, G.W. (2002) *Diabetes Metab. Res. Rev.* 18, 451-463.
2. Concannon, P. et al. (1998) *Nat. Genet.* 19, 292-296.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Applications Key

**IHC-P:** Immunohistochemistry (Paraffin) **IF-F:** Immunofluorescence (Frozen)  
**IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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