

**#4590** Store at **-20°C**

# Insulin Antibody

✓ 100 µl



**Orders** ■ 877-616-CELL (2355)  
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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity	Molecular Wt.	Source
IHC-P, IF-IC, IF-F, F Endogenous	H, M, R	6 kDa	Rabbit*

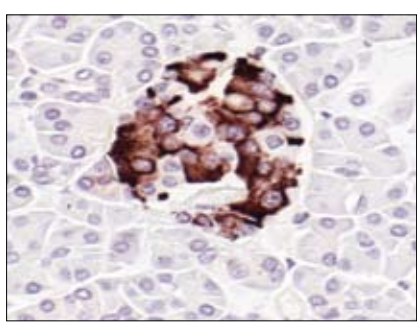
**Background:** Glucose homeostasis is regulated by hormones. Elevations in blood glucose levels during feeding stimulates insulin release from pancreatic  $\beta$  cells through a glucose sensing pathway (1). Insulin is synthesized as a precursor molecule, proinsulin, which is processed prior to its secretion. A- and B-peptides are joined by a disulfide bond to form insulin, and the central part of the precursor molecule is cleaved and released as C-peptide. Insulin stimulates glucose uptake from blood into the skeletal muscle and adipose tissue. Insulin deficiency leads to type 1 diabetes mellitus (2).

**Specificity/Sensitivity:** Insulin Antibody detects endogenous levels of total insulin protein.

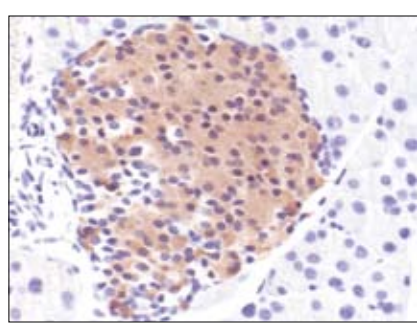
**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human insulin. Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**

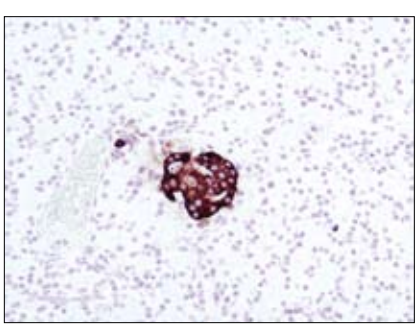
- (1) Straub, S.G. and Sharp, G.W. (2002) *Diabetes Metab. Res. Rev.* 18, 451–463.
- (2) Concannon, P. et al. (1998) *Nat. Genet.* 19, 292–296.



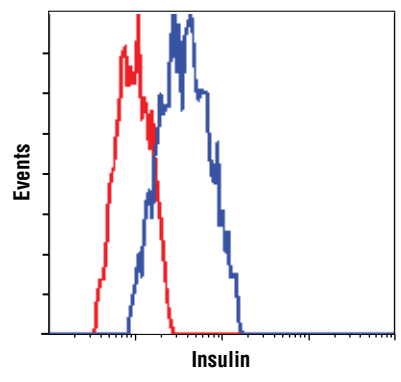
Immunohistochemical analysis of paraffin-embedded human pancreas, showing staining of  $\beta$  cells, using Insulin Antibody.



Immunohistochemical analysis of paraffin-embedded mouse pancreas, showing staining of  $\beta$  cells, using Insulin Antibody.



Immunohistochemical analysis of paraffin-embedded rat pancreas, showing staining of  $\beta$ -cells using Insulin Antibody.



Flow cytometric analysis of untreated  $\beta$ -TC cells, using Insulin Antibody (blue) compared to a nonspecific negative control antibody (red).

**Entrez-Gene ID #** 3630  
**Swiss-Prot Acc. #** P01308

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at  $-20^{\circ}\text{C}$ . Do not aliquot the antibody.

**\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Immunohistochemistry (Paraffin)	1:100
Unmasking buffer:	Citrate
Antibody diluent:	TBST-5%NGS
Immunofluorescence (IF-IC)	1:100
Immunofluorescence (IF-F)	1:100
Flow Cytometry	1:100

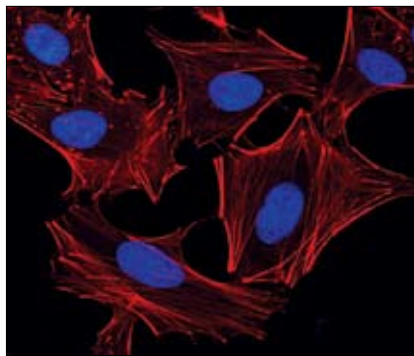
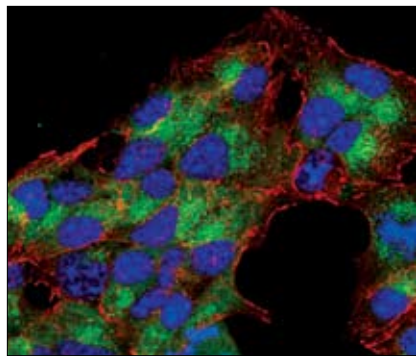
For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com)

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

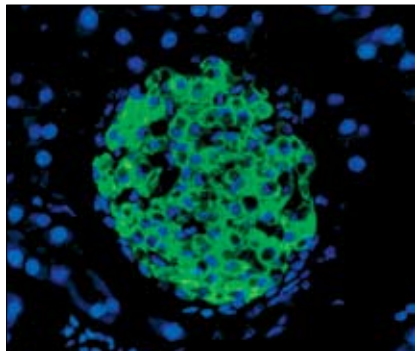
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**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% sequence homology.



*Confocal immunofluorescent analysis of  $\beta$ -TC-6 and HeLa cells using Insulin Antibody (green). Actin filaments have been labeled with Alexa<sup>®</sup> Fluor 555 phalloidin (red). Blue pseudocolor = DRAQ5<sup>®</sup> #4084 (fluorescent DNA dye).*



*Confocal immunofluorescent analysis of normal mouse pancreas using Insulin Antibody (green). Blue pseudocolor = DRAQ5<sup>®</sup> #4084 (fluorescent DNA dye).*