

Insulin (C27C9) Rabbit mAb



Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

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For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity	Isotype
IHC-P, IF-F, IF-IC, F Endogenous	H, M, R	Rabbit IgG**

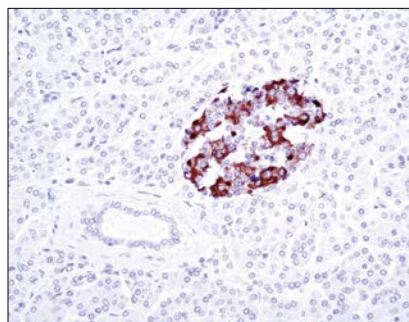
Background: The maintenance of glucose homeostasis is an essential physiological process that is regulated by hormones. An elevation in blood glucose levels during feeding stimulates insulin release from pancreatic β cells through a glucose sensing pathway (1). Insulin is synthesized as a precursor molecule, proinsulin, which is processed prior to its secretion. A- and B-peptides are joined 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 the skeletal muscle and adipose tissue. Insulin deficiency leads to type 1 diabetes mellitus (2).

Specificity/Sensitivity: Insulin (C27C9) Rabbit mAb detects endogenous levels of total insulin protein.

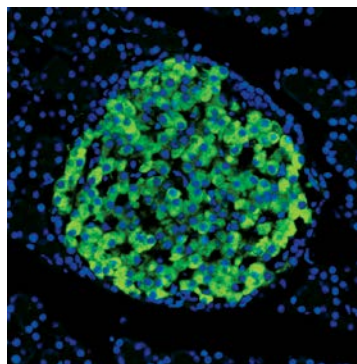
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the sequence of human insulin.

Background References:

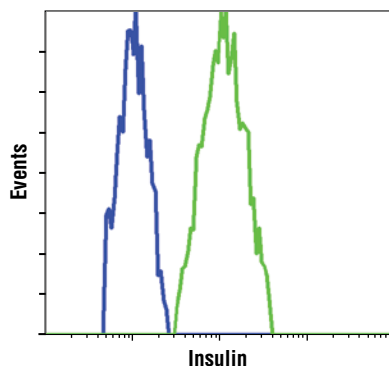
- (1) Straub, S.G. and Sharp, G.W. (2002) *Diabetes Metab. Res. Rev.* 18, 451–463.
- (2) Concannon, P. et al. (1998) *Nat. Genet.* 19, 292–296.



Immunohistochemical analysis of paraffin-embedded human pancreas, showing the staining of β cells, using Insulin (C27C9) Rabbit mAb.



Confocal immunofluorescent analysis of rat pancreas using Insulin (C27C9) Rabbit mAb (green). Blue pseudocolor = DRAQ5[®] #4084 (fluorescent DNA dye).



Flow cytometric analysis of HeLa cells (blue) and β -TC-6 cells (green) using Insulin (C27C9) Rabbit mAb.

Entrez-Gene ID #3630
UniProt ID #P01308

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C . Do not aliquot the antibody.

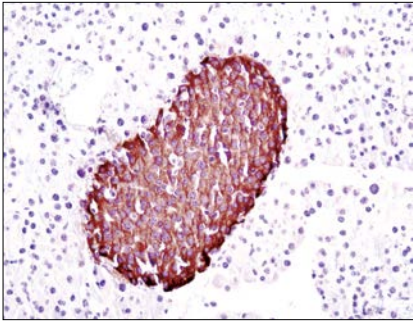
****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

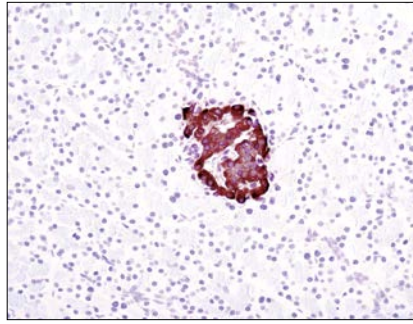
Immunohistochemistry (Paraffin)	1:12800
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain [®] Antibody Diluent #8112
Detection reagent:	SignalStain [®] Boost (HRP, Rabbit) #8114
<i>Optimal IHC dilutions determined using SignalStain[®] Boost IHC Detection Reagent.</i>	
Immunofluorescence (IF-F)	1:800
Immunofluorescence (IF-IC)	1:200
Flow Cytometry	1:50

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

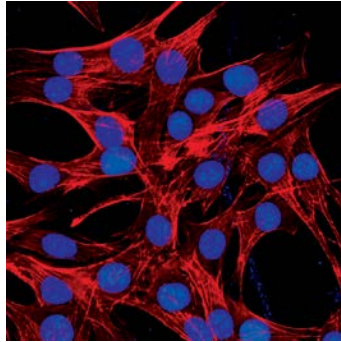
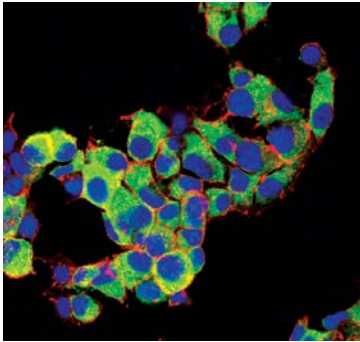
DRAQ5 is a registered trademark of Biostatus Limited.
DyLight is a trademark of Thermo Fisher Scientific Inc. and its subsidiaries.
Tween is a registered trademark of ICI Americas, Inc.



Immunohistochemical analysis of paraffin-embedded mouse pancreas, showing staining of β cells, using Insulin (C27C9) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded rat pancreas, showing staining of β cells, using Insulin (C27C9) Rabbit mAb.



Confocal immunofluorescent analysis of β -TC-6 (left) and C2C12 cells (right) using Insulin (C27C9) Rabbit mAb (green). Actin filaments have been labeled with DyLight™ 554 Phalloidin #13054 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).