#8138 Store at -20°C

Insulin (L6B10) Mouse mAb

Cell Signaling TECHNOLOGY®

Orders ■ 877-616-CELL (2355)
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info@cellsignal.com
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rev. 02/29/16

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

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

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, IF-F Endogenous	R, (H, M)	6 kDa	Mouse IgG2a**

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 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).

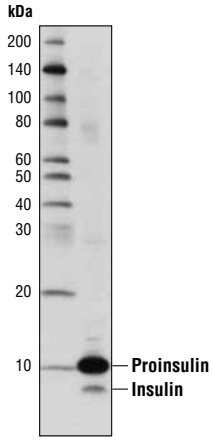
Specificity/Sensitivity: Insulin (L6B10) Mouse mAb recognizes endogenous levels of total insulin and proinsulin.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val36 of human insulin.

Background References:

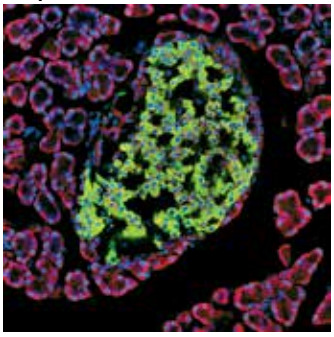
(1) Straub, S.G. and Sharp, G.W. (2002) *Diabetes Metab. Res. Rev.* 18, 451-463.

(2) Concannon, P. et al. (1998) *Nat. Genet.* 19, 292-296.



Western blot analysis of extracts from INS-1 cells using Insulin (L6B10) Mouse mAb.

Rat pancreas



Confocal immunofluorescent analysis of rat pancreas using Insulin (L6B10) Mouse mAb (green) and S6 Ribosomal Protein (5G10) Rabbit mAb #2217 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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

***Species cross-reactivity is determined by western blot.**

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

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (IF-F)	1:800

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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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 **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.