

#4593 Store at -20°C

C-Peptide Antibody

100 μl
 (100 sections)

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

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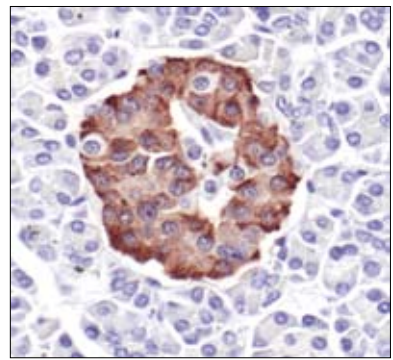
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity	Molecular Wt.	Source
IHC-P, IHC-F, IF-IC, IF-F Endogenous	H, M, R	4 kDa	Rabbit**

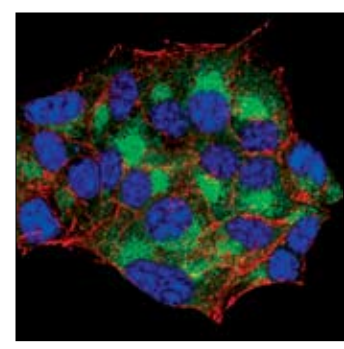
Background: Glucose homeostasis is regulated by hormones. Elevation of blood glucose levels during feeding stimulates insulin release from pancreatic β cells through a glucose sensing pathway (1). Proinsulin, the insulin precursor molecule, is processed prior to its secretion. Insulin is composed of A-peptide and B-peptide which are joined by a disulfide bond. The center one-third of the precursor molecule is cleaved and released as C-peptide, which has a longer half-life than insulin (2).

Specificity/Sensitivity: C-peptide Antibody detects endogenous levels of total C-peptide protein.

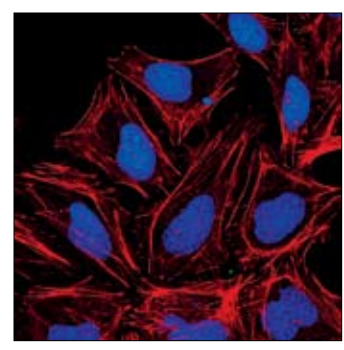
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human C-peptide. Antibodies are purified by protein A and peptide affinity chromatography.



Immunohistochemical analysis of paraffin-embedded human pancreas, showing staining of β cells, using C-Peptide Antibody.



Confocal immunofluorescent analysis of mouse pancreas using C-Peptide Antibody (green). Blue pseudocolor = DRAQ5[®] #4084 (fluorescent DNA dye).



◀ Confocal immunofluorescent analysis of β -TC-6 cells (upper) and HeLa cells (lower) using C-Peptide Antibody (green). Actin filaments have been labeled with DY-555 phalloidin (red). Blue pseudocolor = DRAQ5[®] #4084 (fluorescent DNA dye).

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

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

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

****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
Immunohistochemistry (Frozen)	1:100
Fixative:	3% Formaldehyde
Immunofluorescence (IF-IC)	1:100
Immunofluorescence (IF-F)	1:400

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

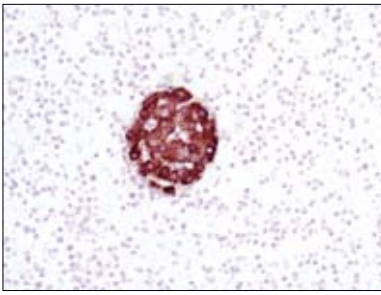
Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

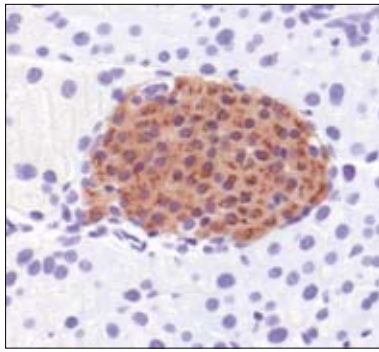
- (1) Straub, S.G. and Sharp, G.W. (2002) *Diabetes Metab. Res. Rev.* 18, 451–463.
- (2) Polonsky, K.S. and Rubenstein, A.H. (1984) *Diabetes* 33, 486–494.

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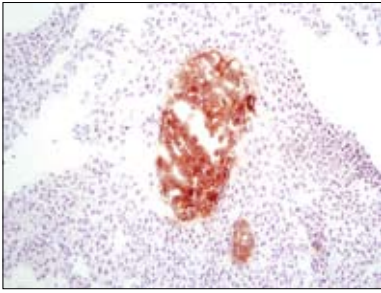
Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 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.



Immunohistochemical analysis of paraffin-embedded rat pancreas showing staining of β -cells using C-Peptide Antibody.



Immunohistochemical analysis of paraffin-embedded mouse pancreas, showing staining of β cells, using C-Peptide Antibody.



Immunohistochemical analysis of frozen mouse pancreas using C-Peptide Antibody.