

# Product Datasheet

## Proinsulin Antibody (CCI-17) - BSA Free NB100-73013

Unit Size: 0.2 mg

Store at 4C. Do not freeze.

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**NB100-73013**

Proinsulin Antibody (CCI-17) - BSA Free

Product Information	
<b>Unit Size</b>	0.2 mg
<b>Concentration</b>	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Store at 4C. Do not freeze.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	CCI-17
<b>Preservative</b>	0.09% Sodium Azide
<b>Isotype</b>	IgG1
<b>Purity</b>	Protein A purified
<b>Buffer</b>	PBS (pH 7.4)
Product Description	
<b>Description</b>	Novus Biologicals Mouse Proinsulin Antibody (CCI-17) - BSA Free (NB100-73013) is a monoclonal antibody validated for use in WB, ELISA and ICC/IF. Anti-Proinsulin Antibody: Cited in 11 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Mouse
<b>Gene ID</b>	3630
<b>Gene Symbol</b>	INS
<b>Species</b>	Human, Rat
<b>Reactivity Notes</b>	Human reactivity reported in scientific literature (PMID: 31311313).
<b>Immunogen</b>	Hybridoma clone has been derived from hybridization of Sp2/0 myeloma cells with spleen cells of Balb/c mice immunized with fragment of rat proinsulin conjugated with a carrier protein.
Product Application Details	
<b>Applications</b>	Western Blot, ELISA, Sandwich ELISA
<b>Recommended Dilutions</b>	Western Blot, ELISA 1:100-1:2000, Sandwich ELISA 1:100-1:2000
<b>Application Notes</b>	Use in Western blot reported in reported in scientific literature (PMID: 31311313). Binds specifically to proinsulin and does not bind to insulin or C-peptide. For sandwich immunoassay it is recommended to use MAbs in pairs with MAbs specific to N-terminal part of C-peptides I and II. Recommended pair for sandwich-type rat proinsulin I and II immunoassay is (capture-detection): NB100-73013 - NBP1-05442.



## Publications

Li X, Hu J, Huang Y et al. Trap  $\alpha$  deficiency impairs the early events of insulin biosynthesis and glucose homeostasis The Journal of Clinical Investigation 2025-05-20 [PMID: 40392602]

Xu X, Arunagiri A, Alam M, Haataja L et Al. Nutrient-dependent regulation of  $\beta$ -cell proinsulin content J Biol Chem 2023-05-20 [PMID: 37209827]

Arunagiri A, Alam M, Haataja L, Draz H et Al. Proinsulin folding and trafficking defects trigger a common pathological disturbance of endoplasmic reticulum homeostasis Protein Sci 2024-03-21 [PMID: 38511500]

Miyake M, Sobajima M, Kurahashi K, Shigenaga A et Al. Identification of an endoplasmic reticulum proteostasis modulator that enhances insulin production in pancreatic  $\beta$  cells Cell Chem Biol 2022-02-10 [PMID: 35143772]

Liu Y, Yang X, Zhou J et Al. OSGEP regulates islet  $\beta$ -cell function by modulating proinsulin translation and maintaining ER stress homeostasis in mice Nat Commun 2024-12-02 [PMID: 39622811]

Chen CW, Guan BJ, Alzahrani MR et al. Adaptation to chronic ER stress enforces pancreatic beta-cell plasticity Nature communications 2022-08-08 [PMID: 35941159] (WB, ICC/IF)

Details:

Dilutions: 1:1000

Xu X, Arunagiri A, Haataja L et al. Proteasomal degradation of wild-type proinsulin in pancreatic beta cells The Journal of biological chemistry 2022-08-18 [PMID: 35988641] (ICC/IF, Rat)

Xu X, Huang Y, Li X et al. The Role of TRAP gamma/SSR3 in Preproinsulin Translocation into the Endoplasmic Reticulum Diabetes 2021-12-02 [PMID: 34857543]

Herlea-Pana O, Eeda V, Undi RB Et al. Pharmacological Inhibition of Inositol-Requiring Enzyme 1  $\alpha$  RNase Activity Protects Pancreatic Beta Cell and Improves Diabetic Condition in Insulin Mutation-Induced Diabetes Frontiers in endocrinology 2021-10-05 [PMID: 34675883] (WB, Mouse)

Chen YJ, Knupp J, Arunagiri A Et al. PGRMC1 acts as a size-selective cargo receptor to drive ER-phagic clearance of mutant prohormones Nature communications 2021-10-13 [PMID: 34645803] (WB)

Huang Y, Xu X, Arvan P, Liu M Deficient endoplasmic reticulum translocon-associated protein complex limits the biosynthesis of proinsulin and insulin FASEB journal : official publication of the Federation of American Societies for Experimental Biology 2021-05-01 [PMID: 33811688]

Liu S, Li X, Yang J et al. Misfolded proinsulin impairs processing of precursor of insulin receptor and insulin signaling in beta cells FASEB J. 2019-07-16 [PMID: 31311313] (WB, Human)



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### Products Related to NB100-73013

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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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