

Product Datasheet

Insulin Antibody (E2-E3 (same as INS04)) NBP2-34260-0.1mg

Unit Size: 0.1 mg

Store at 4C.

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NBP2-34260-0.1mg

Insulin Antibody (E2-E3 (same as INS04))

Product Information	
Unit Size	0.1 mg
Concentration	0.2 mg/ml
Storage	Store at 4C.
Clonality	Monoclonal
Clone	E2-E3 (same as INS04)
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein A or G purified
Buffer	10 mM PBS with 0.05% BSA
Target Molecular Weight	6 kDa

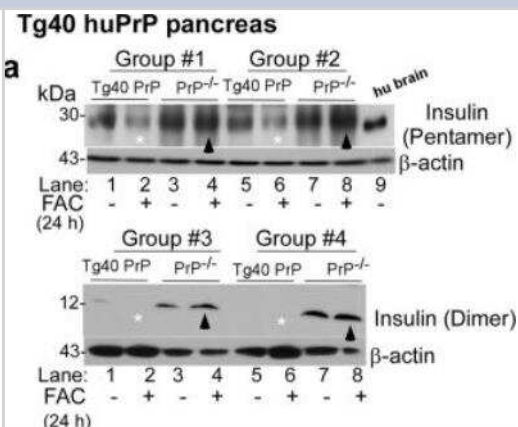
Product Description	
Description	200ug/ml of antibody purified from Bioreactor Concentrate by Protein A or G. Prepared in 10 mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0 mg/ml. (NBP2-34611) Antibody with azide - store at 2 to 8C. Antibody without azide - store at -20 to -80C.
Host	Mouse
Gene ID	3630
Gene Symbol	INS
Species	Human, Mouse, Porcine, Bovine, Rabbit
Marker	beta-Cell & Insulinoma Marker
Specificity/Sensitivity	Recognizes a polypeptide which is identified as insulin, a 51-amino acid polypeptide composed of A and B chains connected through the C-peptide. Proinsulin, which has very little biological activity, is cleaved by proteases within its cell of origin into the insulin molecule and the C-terminal basic residue. Insulin enhances membrane transport of glucose, amino acids, and certain ions. It also promotes glycogen storage, formation of triglycerides, and synthesis of proteins and nucleic acids. Deficiency of insulin results in diabetes mellitus. The main storage site for insulin is the pancreatic islets. Antibodies to insulin are important as beta-cell and insulinoma marker.
Immunogen	Purified pig insulin, conjugated to KLH (Uniprot: P01308)

Product Application Details	
Applications	Western Blot, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 0.5-1ug/ml, Immunohistochemistry, Immunohistochemistry-Paraffin 1-2 ug/ml
Application Notes	Immunohistochemistry (Formalin-fixed): 1-2ug/ml for 30 minutes at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95C followed by cooling at RT for 20 minutes. Optimal dilution for a specific application should be determined.

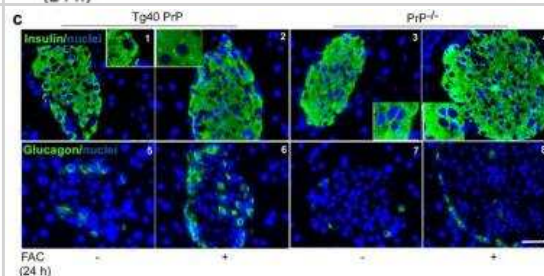


Images

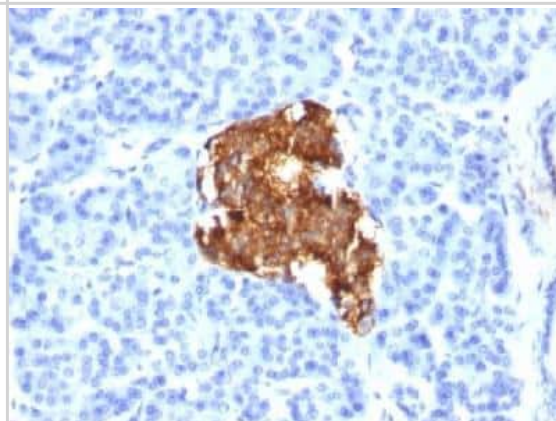
Western Blot: Insulin Antibody (E2-E3 (same as INS04)) [NBP2-34260] - Probing of Western blots of pancreatic lysates from control and iron overloaded Tg40 PrP and PrP^{-/-} mice with antibodies specific for insulin dimer and pentamer (upper and lower panels) shows decreased expression in Tg40 PrP relative to PrP^{-/-} samples (lanes 1 & 5 vs. 3 & 7). Image collected and cropped by CiteAb from the following publication ([nature.com/articles/s41598-018-24786-1](https://www.nature.com/articles/s41598-018-24786-1)), licensed under a CC-BY license.



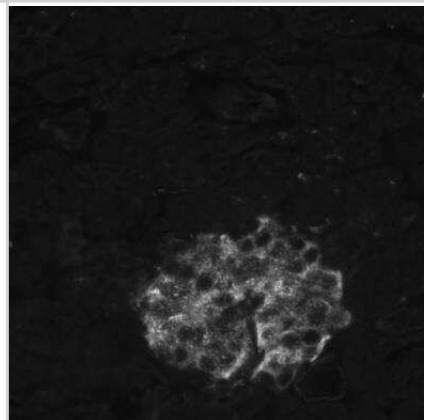
Immunohistochemistry: Insulin Antibody (E2-E3 (same as INS04)) [NBP2-34260] - Immunohistochemistry of pancreas shows relatively higher reactivity for insulin in PrP^{-/-} relative to Tg40 PrP sections (panels 1 & 3). Iron overloading decreases insulin reactivity in Tg40 PrP but not in PrP^{-/-} samples (panels 1 vs. 2 & 3 vs. 4). Reaction for glucagon is higher in iron overloaded Tg40 PrP relative to control samples (panels 5 & 6). The difference is minimal in PrP^{-/-} samples (panels 7 & 8). Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41598-018-24786-1>), licensed under a CC-BY license.



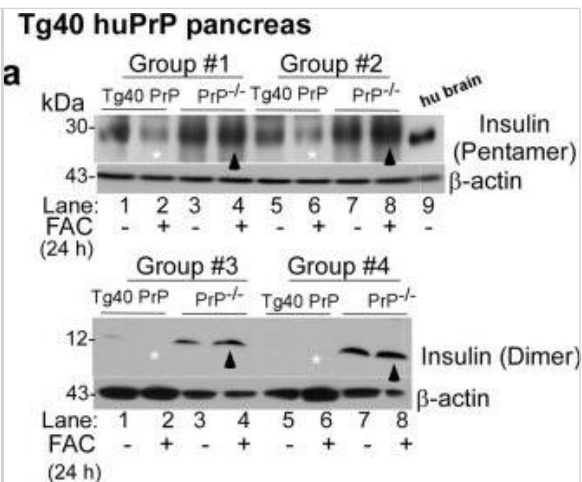
Immunohistochemistry-Paraffin: Insulin Antibody (E2-E3 (same as INS04)) [NBP2-34260] - Formalin-fixed, paraffin-embedded human pancreas stained with insulin Monoclonal Antibody (E2-E3)



Immunohistochemistry-Paraffin: Insulin Antibody (E2-E3 (same as INS04)) [NBP2-34260] - Insulin E2E3, human pancreas (FFPE), HIER pH 9 antigen retrieval. Image from verified customer review.



Hypoxia signaling and cytotoxicity to CdCl₂. (a) Wild-type (WT) cells were left untreated (Ctrl) or exposed to 150 μ M CoCl₂ (Co2+), 1, 5 or 10 μ M CdCl₂ (Cd2+) or 150 μ M CoCl₂ and 10 μ M CdCl₂ for 24 hours. HIF1 α $-/-$ cell extract treated with 150 μ M CoCl₂ was used as a negative control. Nuclear protein was extracted and separated by SDS-PAGE, transferred to nitrocellulose membrane and probed with a HIF1 α (upper panel) or β -actin (lower panel) specific antibody. The bands observed in the cadmium only WT cells are nonspecific as they are also observed in the HIF1 α $-/-$ cells. (b) BNIP3 mRNA expression levels were analyzed by qRT-PCR in wild type (WT, white bars) and HIF1 α $-/-$ cells (black bars). Cells were left untreated (0), or exposed to 5 μ M CdCl₂ (Cd2+) or 150 μ M CoCl₂ (Co2+) for 24 hours. Each value was normalized to the control level in the corresponding cell line. *P < 0.05 compared to the corresponding controls, n = 4. (c) BNIP3 protein levels were determined in wild type and HIF1 α $-/-$ cells after treatment with 150 μ M CoCl₂ (Co2+) or 5 μ M CdCl₂ (Cd2+) for 24 hours using a BNIP3 specific antibody and β -actin was used as a loading control (lower Panel). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/21811500>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Rizk AA, Dybala MP, Rodriguez KC et al. Pancreatic regional blood flow links the endocrine and exocrine diseases The Journal of clinical investigation 2023-06-20 [PMID: 37338995] (IHC, Monkey, Porcine, Mouse, Human, Rabbit, Ferret)

Simon L, Torres D, Saravia A et al. Chronic binge alcohol and ovariectomy-mediated impaired insulin responsiveness in SIV-infected female rhesus macaques American journal of physiology. Regulatory, integrative and comparative physiology 2021-09-15 [PMID: 34524906]

Ashok A, Singh N Prion protein modulates glucose homeostasis by altering intracellular iron Scientific Reports 2018-04-26 [PMID: 29700330]

Ahlers LRH, Trammell CE, Carrell GF et al. Insulin Potentiates JAK/STAT Signaling to Broadly Inhibit Flavivirus Replication in Insect Vectors Cell Rep 2019-11-12 [PMID: 31722209] (WB, Bovine)



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Products Related to NBP2-34260-0.1mg

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
NBP1-87485PEP	Insulin Recombinant Protein Antigen

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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