

Insulin (2B7): sc-52034

BACKGROUND

Insulin is a secreted peptide hormone that elicits metabolic effects such as increases in glucose uptake and glycogen synthesis leading to a decrease in blood glucose concentration. Insulin is first formed as a precursor molecule, proinsulin, which is later cleaved to proinsulin and finally to the mature Insulin hormone. Mature Insulin consists of 51 amino acids, contained within an A chain and a B chain that are connected by two disulfide bridges. It increases cell permeability to monosaccharides, amino acids and fatty acids. Insulin is secreted by the pancreas at basal levels in the absence of exogenous stimuli, with secretion increasing in response to glucose. Insulin action is effected by the binding of Insulin to cell-surface receptors on the target cell membrane. Defects of Insulin are the cause of hyperproinsulinemia and of type 2 diabetes mellitus.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: INS (human) mapping to 11p15.5; Ins1 (mouse) mapping to 19 D2.

SOURCE

Insulin (2B7) is a mouse monoclonal antibody raised against recombinant C-peptide of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

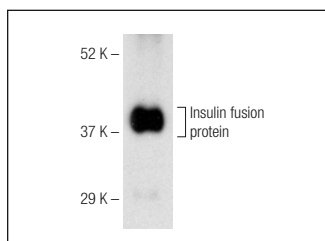
APPLICATIONS

Insulin (2B7) is recommended for detection of free C-peptide and proinsulin molecules of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Insulin siRNA (h): sc-39578, Insulin siRNA (m): sc-39579, Insulin I siRNA (r): sc-156136, Insulin shRNA Plasmid (h): sc-39578-SH, Insulin shRNA Plasmid (m): sc-39579-SH, Insulin I shRNA Plasmid (r): sc-156136-SH, Insulin shRNA (h) Lentiviral Particles: sc-39578-V, Insulin shRNA (m) Lentiviral Particles: sc-39579-V and Insulin I shRNA (r) Lentiviral Particles: sc-156136-V.

Molecular Weight of Insulin: 12 kDa.

DATA



Insulin (2B7): sc-52034. Western blot analysis of human recombinant Insulin fusion protein.

SELECT PRODUCT CITATIONS

- Karimi, S., Khorsandi, L.S. and Ai, J. 2022. Fabrication of bioartificial pancreas using decellularized rat testicular tissue. *Acta Histochem.* 124: 151928.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.