

Product Information

Anti-Human Insulin Protein A scaffold

Cat. No.: **AFB-35LY**

This product is for research use only and is not intended for diagnostic use.

Product Overview

The Anti-Insulin Protein A Scaffold molecule was selected against recombinant human insulin (chain A and B). The Anti-Insulin Protein A Scaffold molecule is excellent for immunohistochemical staining of frozen and paraffin embedded tissue sections and an ideal affinity ligand for chromatography applications. The molecule is modified with a unique C-terminal cysteine for directed single-point chemical modification, facilitating labeling with fluorescent dyes, biotin or coupling to matrices.

Antigen Description

The 5.7 kDa polypeptide hormone insulin is structured as two polypeptide chains, the 21 amino acid A chain and the 30 amino acid B chain, linked by two disulphide bonds. Insulin is synthesized in the beta cells of the islets of Langerhans in the pancreas as a prohormone; proinsulin that is later transformed by proteolytic action into the active hormone. Insulin exerts multiple actions throughout the body to regulate the energy metabolism. Its anabolics action includes build-up and storage of glycogen and fat.

Specific Activity

Anti-Insulin Protein A scaffold molecule binds to human, mouse and rat insulin.

Source

Display library

Species Reactivity

human

Expression Host

E. coli

Applications

Affinity chromatography, immunohistochemical staining of frozen and paraffin embedded tissue sections.

Molecular Weight

14.0 kDa

Storage

At +4°C is recommended for lyophilized protein. For reconstituted protein in physiological buffer, short-term storage at +4°C is recommended. For long-term storage, the protein solution should be aliquoted and then stored at -20°C. There is no decrease in

ANTIGEN GENE INFORMATION

Gene Name

[INS insulin \[Homo sapiens \]](#)

Official Symbol

INS

Synonyms

INS; insulin; ILPR; IRDN; IDDM2; MODY10; IN; proinsulin; Insulin B chain; Insulin A chain; OTTHUMP00000011161; OTTHUMP00000011162; OTTHUMP00000196036; OTTHUMP00000196038; OTTHUMP00000217519

Gene ID

[3630](#)

mRNA Refseq

[NM_000207](#)

Protein Refseq

[NP_000198](#)

MIM

[176730](#)

UniProt ID

P01308

Chromosome Location

11p15.5

Pathway

ATF-2 transcription factor network, organism-specific biosystem; Adipogenesis, organism-specific biosystem; Diabetes pathways, organism-specific biosystem; FOXA1 transcription factor network, organism-specific biosystem; IRS activation, organism-specific biosystem; Insulin Pathway, organism-specific biosystem; Insulin Synthesis and Processing, organism-specific biosystem; Maturity onset diabetes of the young, organism-specific biosystem; Oocyte meiosis, organism-specific biosystem; PI3K Cascade, organism-specific biosystem; Regulation of Insulin Secretion, organism-specific biosystem; SHC activation, organism-specific biosystem; Type I diabetes mellitus, organism-specific biosystem; mTOR signaling pathway, organism-specific biosystem.

Function

Insulin decreases blood glucose concentration. It increases cell permeability to monosaccharides, amino acids and fatty acids. It accelerates glycolysis, the pentose phosphate cycle, and glycogen synthesis in liver.