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# Product Information

## Anti-Human Insulin Protein A scaffold

Cat. No.: **AFB-10LY**
This product is for research use only and is not intended for diagnostic use.

### Antigen Description

Defects in INS are the cause of familial hyperproinsulinemia (FHPRI).
Defects in INS are a cause of diabetes mellitus insulin-dependent type 2 (IDDM2). IDDM2 is a multifactorial disorder of glucose homeostasis that is characterized by susceptibility to ketoacidosis in the absence of insulin therapy. Clinical fetaures are polydipsia, polyphagia and polyuria which result from hyperglycemia-induced osmotic diuresis and secondary thirst. These derangements result in long-term complications that affect the eyes, kidneys, nerves, and blood vessels.
Defects in INS are a cause of diabetes mellitus permanent neonatal (PNDM). PNDM is a rare form of diabetes distinct from childhood-onset autoimmune diabetes mellitus type 1. It is characterized by insulin-requiring hyperglycemia that is diagnosed within the first months of life. Permanent neonatal diabetes requires lifelong therapy.
Defects in INS are a cause of maturity-onset diabetes of the young type 10 (MODY10). MODY10 is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease.

### Specific Activity

This product recognises insulin.

### Source

Display library

### Species Reactivity

Human

### Expression Host

E. coli

### Storage

Store at 4°C short term (1-2 weeks). Aliquot and store at -20°C long term. Avoid repeated freeze/thaw cycles.

## ANTIGEN GENE INFOMATION

### 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**

Hormone activity; hormone activity; hormone activity; insulin receptor binding; insulin receptor binding; insulin-like growth factor receptor binding; protein binding.

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