abcam

Product datasheet

Anti-Insulin antibody [D4B8] ab8303

Overview

Product name	Anti-Insulin antibody [D4B8]
Description	Mouse monoclonal [D4B8] to Insulin
Host species	Mouse
Specificity	Human insulin
Tested applications	**Suitable for:** IHC-Fr
Species reactivity	**Reacts with:** Cow, Human, Pig
Immunogen	Full length native protein (purified) (Human).
General notes	K_{ass} for clone D4B8 is 1.5 x $10^{8}M^{-1}$

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	PBS with 0.1% sodium azide, pH 7.4
Purity	Protein A purified
Clonality	Monoclonal
Clone number	D4B8
Myeloma	x63-Ag8.653
Isotype	IgG1
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab8303 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr		

Application notes This antibody recognises a different epitope **ab8302** (7F8)

Immunohistochemistry on frozen sections.

Target

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.
Involvement in disease	Defects in INS are the cause of familial hyperproinsulinemia (FHPRI) [MIM:176730]. Defects in INS are a cause of diabetes mellitus insulin-dependent type 2 (IDDM2) [MIM:125852]. 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) [MIM:606176]. 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) [MIM:613370]. 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.
Sequence similarities	Belongs to the insulin family.
Cellular localization	Secreted.

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