

## Product datasheet

# Anti-Insulin antibody [D4B8] ab8303

### Overview

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

### Properties

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

### Applications

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
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IHC-Fr

<b>Application notes</b>	This antibody recognises a different epitope <a href="#">ab8302</a> (7F8) Immunohistochemistry on frozen sections.
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## Target

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<b>Function</b>	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.
<b>Involvement in disease</b>	<p>Defects in INS are the cause of familial hyperproinsulinemia (FHPRI) [MIM:176730].</p> <p>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 features 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.</p> <p>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.</p> <p>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.</p>
<b>Sequence similarities</b>	Belongs to the insulin family.
<b>Cellular localization</b>	Secreted.

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