# abcam

## Product datasheet

# Biotin Anti-C Peptide antibody ab48303

#### Overview

**Product name**Biotin Anti-C Peptide antibody

**Description**Biotin Rabbit polyclonal to C Peptide

Host species Rabbit

Conjugation Biotin

Tested applications Suitable for: ELISA, RIA

Species reactivity Reacts with: Human

Predicted to work with: Chimpanzee, Gorilla

Immunogen Synthetic peptide: EAEDLQVGQV ELGGGPGAGS LQPLALEGSL Q conjugated to KLH,

corresponding to internal sequence amino acids 57-87 of Human C Peptide. Conjugated to KLH

via carboxyl group

Run BLAST with EXPASY Run BLAST with S NCBI

#### **General notes**

C Peptide is part of the molecule of Proinsulin, that consists of three parts: C Peptide and two long strands of amino acids (called the alpha and beta chains) that later become linked together to form the insulin molecule. From every molecule of proinsulin, one molecule of insulin plus one molecule of C Peptide are produced. C peptide is released into the blood stream in equal amounts to insulin. A test of C peptide levels will show how much insulin the body is making. 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.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

### **Properties**

Form Liquid

**Storage instructions** Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze /

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thaw cycle.

Storage buffer pH: 7.50

Preservative: 0.01% Thimerosal (merthiolate)

Constituents: PBS, 50% Glycerol

**Purity** Protein G purified

**Primary antibody notes**C Peptide is part of the molecule of Proinsulin, that consists of three parts: C Peptide and two

long strands of amino acids (called the alpha and beta chains) that later become linked together to form the insulin molecule. From every molecule of proinsulin, one molecule of insulin plus one molecule of C Peptide are produced. C peptide is released into the blood stream in equal amounts to insulin. A test of C peptide levels will show how much insulin the body is making. 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.

**Clonality** Polyclonal

**Isotype** IgG

#### **Applications**

#### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab48303 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                                    |
|-------------|-----------|--|
| ELISA       |           | Use at an assay dependent concentration. |
| RIA         |           | Use at an assay dependent concentration. |

#### **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.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <a href="https://www.abcam.com/abpromise">https://www.abcam.com/abpromise</a> or contact our technical team.

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