

Datasheet: MCA2855

Description:	MOUSE ANTI HUMAN C-PEPTIDE
Specificity:	C-PEPTIDE
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	4H8
Isotype:	IgG1
Quantity:	0.2 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting			▪	
Functional Assays			▪	

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Recombinant C-peptide.
External Database Links	UniProt: P01308 Related reagents

Entrez Gene:[3630](#) [INS](#) [Related reagents](#)

RRID	AB_1125306
-------------	------------

Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the X63-Ag8-653 myeloma cell line.
------------------------	---

Specificity	<p>Mouse anti Human C-peptide antibody, clone 4H8 recognizes the human pro-insulin pro-peptide also known as the C-peptide. C-peptide is a 31 amino acid peptide released when proinsulin is cleaved, releasing the α and β insulin chains which form a disulphide linked heterodimer, the active secreted form of insulin within β cells of the islets of Langerhans. When insulin is released from the pancreas into the circulation in response to a rise in serum glucose levels, C-peptide is released in equimolar amounts (Wahren et al. 2000). C-peptide, originally thought to be a biologically inert consequence of insulin processing appears to possess functional qualities, it binds to cell membranes (Rigler et al. 1999) leading to increased intracellular Ca^{2+} concentration and subsequent stimulation of N^+, K^+-ATPase and endothelial nitric oxide synthase activities (Zhong et al. 2004). C-peptide also functions in repair of the muscular layer of arteries (Forst and Hunt 2004) and is a potential agent for the treatment of diabetic vasculopathy (Bhatt et al. 2014). Levels of C-peptide can be used to distinguish between type 1 and type 2 diabetes acting as a biomarker for pancreatic β-cell function, consequently reduced in type 1 diabetes (Kimuni et al. 2014) and may be elevated in type 2 diabetic patients (Oran et al. 2010).</p> <p>Mouse anti Human C-Peptide antibody, clone 4H8 recognizes free C-peptide and proinsulin. It does not cross-react with active human, bovine, porcine, mouse or rat insulin and has been successfully employed for immunoprecipitation of human C-peptide prior to MALDI-TOF mass spectrometric analysis (Oran et al. 2010).</p>
--------------------	---

References	<ol style="list-style-type: none">Oran, P.E. <i>et al.</i> (2010) C-peptide microheterogeneity in type 2 diabetes populations. Proteomics Clin Appl. 4: 106-11.Oran, P.E. <i>et al.</i> (2010) Intrapersonal and populational heterogeneity of the chemokine RANTES. Clin Chem. 56: 1432-41.
-------------------	---

Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
----------------	---

Guarantee	12 months from date of despatch
------------------	---------------------------------

Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
--------------------------------------	--

Regulatory	For research purposes only
-------------------	----------------------------

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)Goat Anti Mouse IgG (STAR77...) [HRP](#)

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@680](#),
[DyLight@800](#), [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
----------------------------------	---	------------------	---	---------------	---

'M367500:200529'

Printed on 11 Aug 2020

© 2020 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)