

Datasheet: HCA180

Description:	HUMAN ANTI HUMAN HbA1c
Specificity:	HbA1c
Other names:	Glycated HbC, Glycated HbS, Glycated hemoglobin, Hb1c, Hemoglobin A1c
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD15785
Isotype:	HuCAL Fab monovalent
Quantity:	0.1 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
ELISA	▪			

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	A monovalent human recombinant Fab (lambda light chain) selected from the HuCAL® phage display library, expressed in <i>E. coli</i> . The antibody is tagged with a V5 tag and a double extended Strep-tag at the C-terminus of the antibody heavy chain. This antibody is supplied as a liquid.
Preparation	StrepTactin affinity chromatography
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.01% Thiomersal
Approx. Protein Concentrations	Antibody concentration 0.5 mg/ml

Immunogen The immunogens used in the generation of this antibody were:
A glycosylated peptide, corresponding to N-terminal 9 amino acids of haemoglobin beta chain coupled to carrier proteins
Purified HbA1c

External Database Links

UniProt:

[P68871](#) [Related reagents](#)

Entrez Gene:

[3043](#) HBB [Related reagents](#)

Specificity

Human anti Human HbA1c antibody, clone AbD15785 recognizes HbA1c, i.e. hemoglobin when glycosylated at the N-terminal valine of the hemoglobin β chain. It does not bind to non-glycosylated hemoglobin. Besides binding to the normal glycosylated hemoglobin, it also recognizes the glycosylated hemoglobin variants HbC, HbE, HbD and to a lesser degree HbS. Elevated HbF cannot be detected due to the absence of the hemoglobin β chain.

The measurement of HbA1c levels is used to identify the average plasma glucose concentration. In Diabetes mellitus, higher levels of HbA1c have been associated with cardiovascular disease and other diseases. Levels of more than 6.5% HbA1c (48 mmol/mol) are used as a criterion to diagnose diabetes.

Affinity

The affinity of this antibody, measured against the immunogen, was measured as $K_D=28$ nM by real time, label-free molecular interaction analysis using HbA1c-BSA and HbA1c-TRF conjugates as immobilized antigen.

The affinity of this antibody, as measured against purified HbA1c, was measured as $K_D=65$ nM by real time, label-free molecular interaction analysis using full length HbA1c as immobilized antigen.

ELISA

This product is suitable for use in direct and indirect ELISA applications.

Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at $2-8^\circ\text{C}$ for short term use (up to 4 weeks) and store the remaining aliquots at -20°C .

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee

12 months from date of despatch

Acknowledgements

Sold under license of U.S. Patents 7785859 and 8273688 and corresponding patents. This antibody was developed by Bio-Rad.

Health And Safety Information

Material Safety Datasheet documentation #10094 available at:
10094: <https://www.bio-rad-antibodies.com/uploads/MSDS/10094.pdf>

Licensed Use For in vitro research purposes only, unless otherwise specified in writing by Bio-Rad.

Regulatory For research purposes only

Technical Advice Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the [HuCAL Antibodies Technical Manual](#)

Related Products

Recommended Secondary Antibodies

Mouse Anti Synthetic Peptide STREP-TAG CLASSIC (MCA2489...) [HRP](#)

Mouse Anti Viral V5-TAG (MCA1360...) [Alk. Phos.](#), [Biotin](#), [HRP](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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