

## Datasheet: HCA429

<b>Description:</b>	HUMAN ANTI BELIMUMAB
<b>Specificity:</b>	BELIMUMAB
<b>Other names:</b>	Benlysta
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD60138ia
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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.

<b>Product Form</b>	Human IgG1 antibody (lambda light chain) selected from the HuCAL® phage display library and expressed in a human cell line. This antibody is supplied as a liquid.
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A
<b>Source</b>	HKB-11
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	Antibody concentration 0.5 mg/ml
<b>Immunogen</b>	Belimumab

**Specificity**

**Human Anti-Belimumab Antibody, clone AbD60138ia** is a paratope specific, inhibitory, anti-idiotypic antibody (Type 1) that specifically recognizes the free human monoclonal antibody drug belimumab, and its biosimilar products. It does not recognize the drug target, the B-cell activating factor BAFF (CD257), nor belimumab in complex with BAFF.

HCA429 is a fully human recombinant monoclonal antibody with IgG1 isotype and is suitable as a surrogate positive control or calibrator in an anti-drug antibody (ADA) assay. This antibody has a monovalent intrinsic affinity of 16nM for belimumab and is one of the three antibodies offered for ADA assays. Antibody [HCA430](#) has an affinity of 3nM and [HCA431](#) has an affinity of 0.2nM for belimumab.

Belimumab (trade name Benlysta) is a fully human monoclonal antibody of the IgG1/lambda isotype that binds to the B-cell activating factor BAFF to prevent its binding to B cells. Although part of the normal immune system, B cells are also responsible for the over-aggressive immune response observed in autoimmune diseases, such as systemic lupus erythematosus (SLE). Through its binding to BAFF, belimumab makes BAFF unavailable to B cells, which induces B cells apoptosis and therefore, a reduction in the overall number of circulating B cells. Therefore, belimumab acts as an immunosuppressant drug and is approved for the treatment of systemic lupus erythematosus.

[View a summary of all anti-belimumab antibodies](#)

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**Affinity**

The monovalent intrinsic affinity of Human Anti-Belimumab Antibody, clone AbD60138ia was measured as  $K_D = 16 \text{ nM}$  by real time, label-free molecular interaction analysis on immobilized belimumab.

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**ELISA**

This product may be used to develop and calibrate immune response assays to measure the anti-drug antibody (ADA) response in patient sera together with [HCA430](#) and [HCA431](#).

Protocol: [ADA bridging ELISA](#)

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**Storage**

This product is shipped at ambient temperature. It is recommended to aliquot and store at  $-20^\circ\text{C}$  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  $-20^\circ\text{C}$ .

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

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**Guarantee**

12 months from date of despatch

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**Acknowledgements**

This product and/or its use is covered by claims of U.S. patents, and/or pending U.S. and non-U.S. patent applications owned by or under license to Bio-Rad Laboratories, Inc. See [bio-rad.com/en-us/trademarks](http://bio-rad.com/en-us/trademarks) for details.  
Benlysta is a registered trademark of GlaxoSmithKline.

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**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/HCA429>

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**Licensed Use** For *in vitro* research purposes and for commercial applications for the provision of *in vitro* testing services to support preclinical and clinical drug development. Any re-sale in any form or any other commercial application needs a written agreement with Bio-Rad.

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**Regulatory** For research purposes only

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

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## Related Products

### Recommended Useful Reagents

[HISPEC ASSAY DILUENT \(BUF049A\)](#)

[HUMAN ANTI BELIMUMAB \(HCA431\)](#)

[HUMAN ANTI BELIMUMAB \(HCA430\)](#)

[HUMAN ANTI BELIMUMAB \(TZA0100\)](#)

[HUMAN ANTI BELIMUMAB:HRP \(TZA0100P\)](#)

[HUMAN ANTI BELIMUMAB \(TZA0101\)](#)

[HUMAN ANTI BELIMUMAB \(TZA0102\)](#)

[HUMAN ANTI BELIMUMAB:HRP \(TZA0102P\)](#)

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)  
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**Printed on 19 Nov 2025**

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