

## Datasheet: TZA0102

<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>	AbD59897
<b>Isotype:</b>	Fab antibody
<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.

### Product Form

A monovalent human recombinant Fab (lambda light chain) selected from the HuCAL® phage display library, expressed in a proprietary *E. coli* strain. The antibody is tagged with a DYKDDDDK tag, a SpyTag version 2 (VPTIVMVDAYKRYK) and a His6-tag (HHHHHH) at the C-terminus of the antibody heavy chain. This antibody is supplied as a liquid.

### Preparation

Metal chelate affinity chromatography

### Source

*E. coli*

### Buffer Solution

Phosphate buffered saline

### Preservative Stabilisers

0.0095% MIT

### Approx. Protein Concentrations

Antibody concentration 0.5 mg/ml

**Immunogen**Belimumab

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**Specificity**

**Human Anti-Belimumab Antibody, clone AbD59897** is a non-inhibitory, anti-idiotypic antibody that specifically recognizes free human monoclonal antibody drug belimumab, and the drug in complex with its target, the B-cell activating factor BAFF (CD257). The antibody does not recognize free BAFF and does not inhibit the binding of belimumab to BAFF.

AbD59897 is available as a monovalent Fab antibody incorporating a SpyTag at the C-terminus end of the antibody heavy chain for conversion by the end user into alternative formats using any of the [SpyCatchers](#) available in our catalog under product code [TZA0102](#). It is also available as a bivalent Fab antibody already conjugated to HRP via coupling to the HRP conjugated BiSpyCatcher2 ([TZC002P](#)) for use in direct ELISA under product code [TZA0102P](#).

A pair of anti-belimumab antibodies can be used to develop a pharmacokinetic (PK) bridging assay. Clone AbD59900ad ([TZA0101](#)) is recommended as the capture antibody paired with clone AbD59897 as the detection antibody, either in purified ([TZA0102](#)) or HRP conjugated ([TZA0102P](#)) format.

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 AbD59897ad was measured as  $K_D = 85$  nM by real time, label free molecular interaction analysis on immobilized belimumab

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**ELISA**

Clone AbD59897ad can be used as a detection antibody for belimumab in a PK ELISA together with [TZA0101](#) as the capture antibody.

Protocol: [PK bridging ELISA](#)

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**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°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.

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**Guarantee**

12 months from date of despatch

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<b>Acknowledgements</b>	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 <a href="http://bio-rad.com/en-us/trademarks">bio-rad.com/en-us/trademarks</a> for details. His-tag is a registered trademark of EMD Biosciences. Benlysta is a registered trademark of GlaxoSmithKline.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20479 available at: <a href="https://www.bio-rad-antibodies.com/SDS/TZA0102">https://www.bio-rad-antibodies.com/SDS/TZA0102</a>
<b>Licensed Use</b>	For <i>in vitro</i> research purposes and for commercial applications for the provision of <i>in vitro</i> 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.
<b>Regulatory</b>	For research purposes only
<b>Technical Advice</b>	Recommended protocols for coupling a Fab antibody with a SpyTag to a SpyCatcher can be found at <a href="#">SpyTag and SpyCatcher Products</a> , and further information about HuCAL recombinant antibody technology can be found in the <a href="#">HuCAL Antibodies Technical Manual</a>

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## Related Products

### Recommended Useful Reagents

[HISPEC ASSAY DILUENT \(BUF049A\)](#)  
[HUMAN ANTI BELIMUMAB \(HCA431\)](#)  
[HUMAN ANTI BELIMUMAB \(HCA430\)](#)  
[HUMAN ANTI BELIMUMAB \(HCA429\)](#)  
[HUMAN ANTI BELIMUMAB \(TZA0100\)](#)  
[HUMAN ANTI BELIMUMAB \(TZA0101\)](#)  
[HUMAN ANTI BELIMUMAB:HRP \(TZA0102P\)](#)  
[HUMAN ANTI BELIMUMAB:HRP \(TZA0100P\)](#)

**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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