

Datasheet: TZA0102P

**BATCH NUMBER 170565**

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|----------------------|--------------------------|
| <b>Description:</b>  | HUMAN ANTI BELIMUMAB:HRP |
| <b>Specificity:</b>  | BELIMUMAB                |
| <b>Other names:</b>  | Benlysta                 |
| <b>Format:</b>       | HRP                      |
| <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 bivalent human recombinant Fab (lambda light chain) generated by coupling of the monovalent SpyTagged Fab [TZA0102](#) with a HRP conjugated BiSpyCatcher version 2 ([TZC002P](#)). The coupled antibody has two DYKDDDDK tags and three His6-tags. It contains SpyTag3 peptide ([BLP086](#)) in 5-fold molar excess to block any unreacted Catcher sites. 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

Antibody concentration 0.5 mg/ml

## Concentrations

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**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.

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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 AbD59897pap can be used as a detection antibody for belimumab in a PK ELISA together with [TZA0101](#) as the capture antibody.

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**Storage** This product is shipped frozen.  
When ready to use, thaw and aliquot the sample as needed. Store aliquots at -70°C, if available, otherwise store at -20°C. It is not recommended to keep aliquots at 4°C for more than one week. 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 for details.  
His-tag is a registered trademark of EMD Biosciences.  
Benlysta is a registered trademark of GlaxoSmithKline.

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| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #20479 available at: <a href="https://www.bio-rad-antibodies.com/SDS/TZA0102P">https://www.bio-rad-antibodies.com/SDS/TZA0102P</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

[HUMAN ANTI BELIMUMAB \(HCA431\)](#)  
[HISPEC ASSAY DILUENT \(BUF049A\)](#)  
[HUMAN ANTI BELIMUMAB \(HCA430\)](#)  
[HUMAN ANTI BELIMUMAB \(HCA429\)](#)  
[HUMAN ANTI BELIMUMAB \(TZA0100\)](#)  
[HUMAN ANTI BELIMUMAB:HRP \(TZA0100P\)](#)  
[HUMAN ANTI BELIMUMAB \(TZA0101\)](#)  
[HUMAN ANTI BELIMUMAB \(TZA0102\)](#)

**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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