

## Datasheet: TZA0100P

**BATCH NUMBER 170563**

<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>	AbD60131
<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 (kappa light chain) generated by coupling of the monovalent SpyTagged Fab [TZA0100](#) 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 AbD60131** 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. This antibody can be used to measure free belimumab levels in serum from patients.

Clone AbD60131 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 [TZA0100](#). 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 [TZA0100P](#).

A pharmacokinetic (PK) bridging assay can be developed to measure free belimumab using clone AbD60131 in the purified Fab format TZA0100 as a capture antibody and the HRP conjugated bivalent Fab format TZA0100P for detection.

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 AbD60131pap was measured as  $K_D = 0.3$  nM by real time, label free molecular interaction analysis on immobilized belimumab

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**ELISA** Clone AbD60131pap can be used as a detection antibody for belimumab in a PK ELISA together with [TZA0100](#) 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  $-70^{\circ}\text{C}$ , if available, otherwise store at  $-20^{\circ}\text{C}$ . It is not recommended to keep aliquots at  $4^{\circ}\text{C}$  for more than one week.

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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.  
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/TZA0100P">https://www.bio-rad-antibodies.com/SDS/TZA0100P</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 \(TZA0102\)](#)  
[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)  
'M438197:250408'

**Printed on 24 Sep 2025**