

Datasheet: TZA0100

Description:	HUMAN ANTI BELIMUMAB
Specificity:	BELIMUMAB
Other names:	Benlysta
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD60131
Isotype:	Fab antibody
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.

Product Form

A monovalent human recombinant Fab (kappa 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

ImmunogenBelimumab

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.

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

Affinity

The monovalent intrinsic affinity of AbD60131ad was measured as $K_D = 0.3$ nM by real time, label free molecular interaction analysis on immobilized belimumab

ELISA

Clone AbD60131ad can be used as a capture antibody for belimumab in a PK ELISA together with [TZA0100P](#) as the detection antibody.

Protocol: [PK bridging ELISA](#)

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.

Guarantee

12 months from date of despatch

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.

Health And Safety Information Material Safety Datasheet documentation #20479 available at: <https://www.bio-rad-antibodies.com/SDS/TZA0100>

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.

Regulatory For research purposes only

Technical Advice Recommended protocols for coupling a Fab antibody with a SpyTag to a SpyCatcher can be found at [SpyTag and SpyCatcher Products](#), and further information about HuCAL recombinant antibody technology can be found in the [HuCAL Antibodies Technical Manual](#)

Related Products

Recommended Useful Reagents

[HISPEC ASSAY DILUENT \(BUF049A\)](#)
[HUMAN ANTI BELIMUMAB \(HCA431\)](#)
[HUMAN ANTI BELIMUMAB \(HCA430\)](#)
[HUMAN ANTI BELIMUMAB \(HCA429\)](#)
[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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M444729:250717'

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