

## Datasheet: TZA0104

<b>Description:</b>	HUMAN ANTI DARATUMUMAB
<b>Specificity:</b>	DARATUMUMAB
<b>Other names:</b>	Darzalex
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD45015
<b>Isotype:</b>	HuCAL Fab monovalent
<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 (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 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

**Specificity**

**Human anti daratumumab antibody, clone AbD45015** is a paratope specific, inhibitory anti-idiotypic antibody that recognizes the monoclonal antibody daratumumab. It does not recognize free CD38 nor daratumumab in complex with CD38. The antibody can be used to measure free daratumumab in patient samples.

Human anti daratumumab antibody, clone AbD45015 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 [TZA0104](#). 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 [TZA0104P](#).

A pair of anti daratumumab antibodies can be used to develop a pharmacokinetic (PK) bridging assay to measure free drug. This antibody, in monovalent Fab format, is recommended as the capture antibody, and a bivalent format of the same clone is recommended as the detection antibody. For example, use clone AbD45015ia ([HCA364](#)) in full IgG1 format, or convert the monovalent SpyTagged Fab to a bivalent format by coupling to a SpyCatcher product.

Daratumumab (trade name Darzalex) is a human IgG1/kappa antibody generated using transgenic mouse technology. It has been approved for the treatment of patients with multiple myeloma. It has orphan drug designation for multiple myeloma, diffuse large B cell lymphoma, follicular lymphoma, and mantle cell lymphoma. The antibody drug targets CD38, overexpressed by multiple myeloma cells, and indirectly induces apoptosis. In addition, daratumumab modulates CD38 enzymatic activity, inhibiting the cyclase enzyme activity and stimulating the hydrolase activity ([Van de Donk et al. 2016](#)).

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

**Affinity**

The monovalent intrinsic affinity of AbD45015ad was measured as  $K_D = 0.9$  nM by real time, label free molecular interaction analysis on immobilized daratumumab.

**ELISA**

Clone AbD45015ad can be used as the capture antibody for daratumumab in a bridging ELISA, or as a detection antibody in an indirect ELISA.

Protocol: [PK bridging ELISA](#)

**Further Reading**

1. van, N.D.D. *et al.* (2016) Monoclonal antibodies targeting CD38 in hematological malignancies and beyond. [Immunol Rev. 270 \(1\): 95-112](#).

**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.

<b>Guarantee</b>	12 months from date of despatch
<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="https://www.bio-rad.com/en-us/trademarks">bio-rad.com/en-us/trademarks</a> for details. His-tag is a registered trademark of EMD Biosciences. Darzalex is a trademark of Janssen Biotech, Inc.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20479 available at: <a href="https://www.bio-rad-antibodies.com/SDS/TZA0104">https://www.bio-rad-antibodies.com/SDS/TZA0104</a>
<b>Licensed Use</b>	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.
<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>

## Related Products

### Recommended Useful Reagents

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

[HUMAN ANTI DARATUMUMAB \(HCA364\)](#)

[HUMAN ANTI DARATUMUMAB \(HCA366\)](#)

[HUMAN ANTI DARATUMUMAB \(HCA365\)](#)

[HUMAN ANTI DARATUMUMAB:HRP \(TZA0104P\)](#)

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