

## Datasheet: TZA015

<b>Description:</b>	HUMAN ANTI DUPILUMAB
<b>Specificity:</b>	DUPILUMAB
<b>Other names:</b>	Dupixent
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD47092
<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**Dupilumab

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**Specificity**

**Human Anti-Dupilumab Antibody, clone AbD47092** is a paratope specific, inhibitory anti-idiotypic antibody (Type 1) that specifically recognizes the free human monoclonal antibody drug dupilumab. TZA015 neither recognizes free IL-4Ra nor dupilumab in complex with IL-4Ra. Consequently, this antibody can be used to measure free dupilumab levels in serum from patients.

This TrailBlazer Antibody is available in two different formats, monovalent Fab unconjugated (TZA015) and bivalent Fab conjugated to HRP (TZA015P). The monovalent recombinant Fab antibody has a SpyTag incorporated, which is used to create the bivalent format by coupling two SpyTagged Fab antibodies to an HRP conjugated BiSpyCatcher2 ([TZC002P](#)). Either format can be used to develop a pharmacokinetic (PK) bridging ELISA to measure free dupilumab captured via immobilized IL-4Ra.

TZA015 can also be converted by the user into alternative antibody formats using any of the SpyCatchers available in our catalog.

[View a summary of all SpyCatcher products](#)

Clone AbD47092 is also available in full length IgG1 format under product code [HCA384](#)

Dupilumab (Dupixent) is a human IgG4/kappa antibody inhibiting both IL-4 and IL-13 receptors, thereby blocking these receptor signaling pathways. Dupilumab inhibits the signaling of interleukins (IL) that induce inflammatory and immunological reactions in several atopic or allergic conditions, such as eczema, allergic reaction, and rhinosinusitis.

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

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**Affinity**

The monovalent intrinsic affinity of AbD47092ad was measured as  $K_D = 0.3$  nM by real time, label free molecular interaction analysis on immobilized dupilumab.

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**ELISA**

Clone AbD47092ad can be used as the capture antibody for dupilumab in a bridging ELISA together with AbD47092ad ([TZA015](#)) coupled to an HRP-conjugated BiSpyCatcher2 as the detection reagent

Protocol: [PK bridging ELISA](#)

Also this antibody can be coupled with SpyCatcher adaptors for use in combination with clone AbD47091ad ([TZA014](#)) as capture reagent. Note that both [TZA014](#) (capture) and TZA015 (detection) contain the same peptide tags, therefore using anti-tag antibodies for detecting TZA015 is not possible.

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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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**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.  
Dupixent is a trademark of Regeneron Pharmaceuticals, Sanofi-Aventis

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**Health And Safety Information** Material Safety Datasheet documentation #20479 available at: <https://www.bio-rad-antibodies.com/SDS/TZA015>  
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**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.

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**Regulatory** For research purposes only

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**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](#)

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## Related Products

### Recommended Useful Reagents

[SpyTag3 PEPTIDE \(BLP086\)](#)

[HUMAN ANTI DUPILUMAB \(HCA383\)](#)

[HUMAN ANTI DUPILUMAB \(HCA384\)](#)

[HUMAN ANTI DUPILUMAB \(TZA014\)](#)

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

[HUMAN ANTI DUPILUMAB:HRP \(TZA015P\)](#)

[HUMAN ANTI DUPILUMAB \(TZA016\)](#)

[HUMAN ANTI DUPILUMAB \(TZA017\)](#)

[HUMAN ANTI DUPILUMAB:HRP \(TZA017P\)](#)

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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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