

## Datasheet: TZA052P

<b>Description:</b>	HUMAN ANTI RAMUCIRUMAB:HRP
<b>Specificity:</b>	RAMUCIRUMAB
<b>Other names:</b>	Cyramza
<b>Format:</b>	HRP
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD53018
<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 [TZA052](#) 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 Concentrations

Antibody concentration 0.5 mg/ml

**Immunogen**Ramucirumab

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**Specificity**

**Human Anti-Ramucirumab Antibody, clone AbD53018** is a non-paratope specific, non-inhibitory anti-idiotypic antibody (Type 2) that specifically recognizes the humanized monoclonal antibody drug ramucirumab. It recognizes free ramucirumab and ramucirumab in complex with its target, the human vascular endothelial growth factor receptor 2 (VEGFR2). It can be used to measure total levels of ramucirumab and biosimilars in patient samples.

The monovalent Fab format of this antibody, clone AbD53018ad ([TZA052](#)) is tagged with a SpyTag2 at the C-terminus of the Fab heavy chain, enabling the user to couple it to a [SpyCatcher reagent](#) for conversion to alternative formats in less than one hour. This antibody is also available as a bivalent Fab antibody pre-coupled to the HRP-conjugated BiSpyCatcher2 ([TZC002P](#)) under product code [TZA052P](#) for direct detection of ramucirumab in bioanalysis assays.

A pair of anti-ramucirumab antibodies can be used to develop a pharmacokinetic (PK) bridging assay to measure total drug. Clone AbD53018 can be used as a detection antibody to develop a pharmacokinetic (PK) bridging assay together with [TZA050](#) as the capture antibody.

Ramucirumab (trade name Cyramza) is a humanized monoclonal antibody of the IgG1/kappa isotype that binds to the extracellular VEGF-binding domain of VEGFR2 to prevent VEGF ligands to bind to VEGFR2. Ramucirumab therefore blocks the activation of VEGFR2 and the downstream angiogenesis pathways involved in tumor development and progression. Ramucirumab is indicated, alone or in combination with another drug for the treatment of advanced gastric adenocarcinoma and non-small cell lung cancer.

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

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**Affinity**

The monovalent intrinsic affinity of AbD53018pap was measured as  $K_D = 17$  nM by real time, label free molecular interaction analysis on immobilized ramucirumab.

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**ELISA**

Clone AbD53018pap can be used in direct ELISA to detect ramucirumab. It can also be used as a detection antibody to develop a pharmacokinetic (PK) bridging ELISA for ramucirumab, together with [TZA050](#) as the capture reagent.

Protocol: [PK bridging ELISA](#)

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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](https://www.bio-rad.com/en-us/trademarks) for details.

His-tag is a registered trademark of EMD Biosciences.

Cyramza is a trademark of Eli Lilly.

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**Health And Safety Information**

Material Safety Datasheet documentation #20479 available at: <https://www.bio-rad-antibodies.com/SDS/TZA052P>

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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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**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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