

Datasheet: TZA052

Description:	HUMAN ANTI RAMUCIRUMAB
Specificity:	RAMUCIRUMAB
Other names:	Cyramza
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD53018
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 (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

ImmunogenRamucirumab

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.

Affinity

The monovalent intrinsic affinity of AbD53018ad was measured as $K_D = 17$ nM by real time, label free molecular interaction analysis on immobilized ramucirumab.

ELISA

Clone AbD53018ad can be used in indirect 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. Note that both TZA050 (capture) and TZA052 (detection) contain the same peptide tags. Therefore, using anti-tag antibodies for detecting TZA052 is not possible.

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.
Cynamza is a trademark of Eli Lilly.

Health And Safety Information

Material Safety Datasheet documentation #20479 available at:
<https://www.bio-rad-antibodies.com/SDS/TZA052>
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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.

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](#)

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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

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