

Datasheet: TZA041

**BATCH NUMBER 167372**

<b>Description:</b>	HUMAN ANTI AVELUMAB
<b>Specificity:</b>	AVELUMAB
<b>Other names:</b>	Bavencio
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD40521ad
<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**

Avelumab

**Specificity**

**Human Anti-Avelumab Antibody, clone AbD40521ad** is a paratope specific, inhibitory anti-idiotypic antibody (Type 1) that specifically recognizes the free human monoclonal antibody drug avelumab. The antibody does not recognize free PD-L1 nor avelumab in complex with PD-L1. This antibody can be used to measure free avelumab levels in serum from patients.

TZA041 is available in monovalent Fab unconjugated format. It can be used to develop a pharmacokinetic (PK) bridging ELISA to measure free avelumab captured via immobilized PD-L1.

Anti-Avelumab monovalent Fab antibody TZA041 has a SpyTag incorporated for conversion by the user into alternative antibody formats using any of the SpyCatchers available in our catalog.

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

Avelumab (Bavencio) is a human IgG1/lambda antibody with allotype IGHG1\*05 (G1m17,1). It binds to programmed death-ligand 1 (PD-L1, CD274) on tumor cells, blocking its interaction with PD-1 and B7-1 receptors on T-lymphocytes. PD-L1 is an immune checkpoint protein expressed on tumor cells and tumor-infiltrating immune cells that down regulates T-cell function, so by blocking these receptors anti-tumor T-cell activity can be restored. In vitro, the drug has been shown to stimulate natural killer cell-mediated direct tumor cell lysis by inducing antibody-dependent cell-mediated cytotoxicity. Avelumab has been approved both as monotherapy for the treatment of adult patients with metastatic Merkel cell carcinoma (MCC) and for the treatment of advanced Renal Cell Carcinoma (RCC).

**Affinity**

The monovalent intrinsic affinity of AbD40521ad was measured as  $K_D = 1$  nM by real time, label free molecular interaction analysis on immobilized avelumab.

**ELISA**

Clone AbD40521ad can be used as the capture antibody for avelumab in a PK ELISA together with [TZA040P](#) 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.  
Bavencio is a registered trademark of Merck Serono (Pfizer as co-developer).

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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20479 available at: <a href="https://www.bio-rad-antibodies.com/SDS/TZA041">https://www.bio-rad-antibodies.com/SDS/TZA041</a> 20479
<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>

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## Related Products

### Recommended Useful Reagents

[HUMAN ANTI AVELUMAB \(HCA396\)](#)  
[BiSpyCatcher2:HRP \(TZC002P\)](#)  
[SpyTag3 PEPTIDE \(BLP086\)](#)  
[HISPEC ASSAY DILUENT \(BUF049A\)](#)  
[HUMAN ANTI AVELUMAB \(HCA397\)](#)  
[HUMAN ANTI AVELUMAB \(HCA398\)](#)  
[HUMAN ANTI AVELUMAB \(TZA040\)](#)  
[HUMAN ANTI AVELUMAB:HRP \(TZA040P\)](#)  
[HUMAN ANTI AVELUMAB \(DRUG/TARGET COMPLEX\) \(TZA042\)](#)  
[HUMAN ANTI AVELUMAB \(DRUG/TARGET COMPLEX\):HRP \(TZA042P\)](#)

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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](https://bio-rad-antibodies.com/datasheets)  
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