

## Datasheet: TZA042P

**BATCH NUMBER 167371**

<b>Description:</b>	HUMAN ANTI AVELUMAB (DRUG/TARGET COMPLEX):HRP
<b>Specificity:</b>	AVELUMAB DRUG/TARGET COMPLEX
<b>Other names:</b>	Bavencio
<b>Format:</b>	HRP
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD42040
<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.

<b>Product Form</b>	A bivalent human recombinant Fab (kappa light chain) generated by coupling of the monovalent SpyTagged Fab <a href="#">TZA042</a> with a HRP conjugated BiSpyCatcher version 2 ( <a href="#">TZC002P</a> ). The coupled antibody has two DYKDDDDK tags and three His6-tags. It contains SpyTag3 peptide ( <a href="#">BLP086</a> ) in 5-fold molar excess to block any unreacted Catcher sites. This antibody is supplied as a liquid.
<b>Preparation</b>	Metal chelate affinity chromatography
<b>Source</b>	E.coli
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.0095% MIT
<b>Approx. Protein</b>	Antibody concentration 0.5 mg/ml

## Concentrations

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Immunogen	Avelumab/PD-L1 complex
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Specificity	<b>Human Anti-Avelumab (Drug/Target Complex) Antibody, clone AbD42040</b> specifically recognizes the antibody drug avelumab when in complex with its target, PD-L1 (programmed cell death ligand 1). This antibody (TZA042) is non-inhibitory (Type 3) and does not recognize free avelumab nor unbound recombinant human PD-L1. It can be used to measure Avelumab/PD-L1 complex levels in serum from patients.
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TZA042 is available in two formats incorporating a SpyTag: a monovalent recombinant Fab format ([TZA042](#)), and the bivalent SpyTag Fab format ([TZA042P](#)) coupled with a HRP conjugated BiSpyCatcher2 ([TZC002P](#)). Either format can be used to develop a pharmacokinetic (PK) antigen capture assay to measure free avelumab captured via immobilized PD-L1.

Protocol: [PK Antigen Capture ELISA](#)

Anti-Avelumab monovalent Fab antibody TZA042 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).

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Affinity	The monovalent intrinsic affinity of AbD42040pap was measured as $K_D = 4$ nM by real time, label free molecular interaction analysis on immobilized PD-L1/avelumab complex.
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ELISA	Clone AbD42040pap may be used in a direct ELISA on avelumab in complex with PD-L1. It can be used as the detection antibody in a PK antigen capture assay to measure avelumab in complex with PD-L1.
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Protocol: [PK Antigen Capture 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.
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<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	<p>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-antibodies.com/en-us/trademarks">bio-rad.com/en-us/trademarks</a> for details.</p> <p>His-tag is a registered trademark of EMD Biosciences.</p> <p>Bavencio is a trademark of Merck Serono (Pfizer as co-developer).</p>
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #20479 available at: <a href="https://www.bio-rad-antibodies.com/SDS/TZA042P">https://www.bio-rad-antibodies.com/SDS/TZA042P</a></p> <p>20479</p>
<b>Licensed Use</b>	For <i>in vitro</i> research purposes only, unless otherwise specified in writing by Bio-Rad.
<b>Regulatory</b>	For research purposes only
<b>Technical Advice</b>	<p>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></p>

## Related Products

### Recommended Useful Reagents

[HISPEC ASSAY DILUENT \(BUF049A\)](#)  
[HUMAN ANTI AVELUMAB \(HCA396\)](#)  
[HUMAN ANTI AVELUMAB \(HCA397\)](#)  
[HUMAN ANTI AVELUMAB \(HCA398\)](#)  
[HUMAN ANTI AVELUMAB \(TZA040\)](#)  
[HUMAN ANTI AVELUMAB:HRP \(TZA040P\)](#)  
[HUMAN ANTI AVELUMAB \(TZA041\)](#)  
[HUMAN ANTI AVELUMAB \(DRUG/TARGET COMPLEX\) \(TZA042\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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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://www.bio-rad-antibodies.com/datasheets)  
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