

Datasheet: TZA042

Description:	HUMAN ANTI AVELUMAB (DRUG/TARGET COMPLEX)
Specificity:	AVELUMAB DRUG/TARGET COMPLEX
Other names:	Bavencio
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD42040
Isotype:	Fab antibody
Quantity:	0.1 mg

Product Details

Applications	<p>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.</p> <table> <tr> <th></th><th>Yes</th><th>No</th><th>Not Determined</th><th>Suggested Dilution</th></tr> <tr> <td>ELISA</td><td>■</td><td></td><td></td><td></td></tr> </table> <p>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.</p>					Yes	No	Not Determined	Suggested Dilution	ELISA	■			
	Yes	No	Not Determined	Suggested Dilution										
ELISA	■													
Product Form	<p>A monovalent human recombinant Fab (kappa light chain) selected from the HuCAL® phage display library, expressed in a proprietary <i>E. coli</i> 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.</p>													
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													

Specificity

Human Anti-Avelumab (Drug/Target Complex) Antibody, clone AbD42040 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.

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).

Affinity

The monovalent intrinsic affinity of AbD42040ad was measured as $K_D = 4$ nM by real time, label free molecular interaction analysis on immobilized PD-L1/avelumab complex.

ELISA

Clone AbD42040ad may be used in a PK Antigen Capture ELISA on avelumab in complex with PD-L1. It can be used as the detection antibody to measure avelumab in complex with PD-L1.

Protocol: [PK Antigen Capture 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	<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 bio-rad.com/en-us/trademarks 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>
Health And Safety Information	<p>Material Safety Datasheet documentation #20479 available at: https://www.bio-rad-antibodies.com/SDS/TZA042</p> <p>20479</p>
Licensed Use	For <i>in vitro</i> research purposes and for commercial applications for the provision of <i>in vitro</i> 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	<p>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</p>

Related Products

Recommended Useful Reagents

[HISPEC ASSAY DILUENT \(BUF049A\)](#)
[BiSpyCatcher2:HRP \(TZC002P\)](#)
[SpyTag3 PEPTIDE \(BLP086\)](#)
[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 \(DRUG/TARGET COMPLEX\):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
'M442140:250528'

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