

## Datasheet: HCA297P

<b>Description:</b>	HUMAN ANTI PEMBROLIZUMAB:HRP
<b>Specificity:</b>	PEMBROLIZUMAB
<b>Format:</b>	HRP
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD30685_hlgG1
<b>Isotype:</b>	IgG1
<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>	Human IgG1 antibody (lambda light chain) selected from the HuCAL phage display library and expressed in a human cell line. This antibody is conjugated to horseradish peroxidase (HRP) and supplied as liquid.
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A
<b>Source</b>	HKB-11
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.0095% MIT
<b>Approx. Protein Concentrations</b>	Antibody concentration 1.0 mg/ml
<b>Immunogen</b>	Pembrolizumab
<b>Specificity</b>	<b>Human Anti-Pembrolizumab Antibody, clone AbD30685_hlgG1</b> is a paratope specific,

inhibitory anti-idiotypic antibody that specifically recognizes the free humanized monoclonal antibody pembrolizumab. The antibody does not recognize recombinant human programmed cell death 1 (PD-1) or pembrolizumab in complex with recombinant human PD-1 and can be used to measure free pembrolizumab levels in serum from patients.

Clone AbD30685\_hIgG1 is a fully human recombinant monoclonal antibody with IgG1 isotype and is suitable as a reference standard in an anti-drug antibody (ADA) assay. A pair of anti-pembrolizumab antibodies can be used to develop a pharmacokinetic (PK) bridging assay to measure free drug. This antibody, in full immunoglobulin format, is recommended as the detection antibody paired with clone AbD30689 ([HCA296](#)) in monovalent Fab format as the capture antibody.

Pembrolizumab (Keytruda) is a humanized (IgG4/kappa) antibody with the heavy chain mutation S228P (IgG4-Pro). Pembrolizumab is used to treat inoperable or metastatic melanoma, metastatic non-small cell lung cancer (NSCLC), and as a second-line treatment for head and neck squamous cell carcinoma (HNSCC). For NSCLC, pembrolizumab is a first line treatment if the cancer overexpresses PDL1 and has no mutations in EGFR or ALK. Pembrolizumab is a checkpoint inhibitor and acts as an immunomodulator by blocking ligand activation of PD-1 receptor on T cells, thereby activating T cells to attack the cancer. It blocks PD-1 interaction with PD-1 ligand (PD-L1) and PD-1 ligand 2 (PD-L2).

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

<b>Affinity</b>	The intrinsic affinity of the monovalent form of Human anti Pembrolizumab antibody, clone AbD30685_hIgG1 is $K_D = 5 \text{ nM}$ as measured by real time, label free molecular interaction analysis on immobilized Pembrolizumab.
<b>ELISA</b>	Human anti Pembrolizumab antibody, clone AbD30685_hIgG1 can be used in a direct ELISA or as detection antibody for pembrolizumab in a bridging ELISA together with <a href="#">HCA296</a> as the capture reagent.  Protocol: <a href="#">PK bridging ELISA to measure free drug</a> .
<b>References</b>	1. Engström, J. (2023) Gyrolab Immunoassays: Miniaturization, Automation, and Integration into a Rapid Workflow. <a href="#">Methods Mol Biol. 2612: 109-27.</a>
<b>Storage</b>	This product is shipped frozen. When ready to use, thaw and aliquot the sample as needed. Store aliquots at $-70^{\circ}\text{C}$ , if available, otherwise store at $-20^{\circ}\text{C}$ . It is not recommended to keep aliquots at $4^{\circ}\text{C}$ for more than one week.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	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="#">bio-rad.com/en-us/trademarks</a> for details.

Keytruda is a trademark of Merck & Co.

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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/HCA297P">https://www.bio-rad-antibodies.com/SDS/HCA297P</a> 20479
<b>Licensed Use</b>	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.
<b>Regulatory</b>	For research purposes only
<b>Technical Advice</b>	Recommended protocols 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 Negative Controls

[RECOMBINANT HUMAN IgG1 LAMBDA ALLOTYPIC G1m3 \(HCA049\)](#)

### Recommended Useful Reagents

[HISPEC ASSAY DILUENT \(BUF049A\)](#)

[MOUSE ANTI HUMAN IgG \(Fc\) CH2 DOMAIN:HRP \(MCA647P\)](#)

[HUMAN ANTI PEMBROLIZUMAB \(HCA296\)](#)

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