

## Datasheet: HCA169

<b>Description:</b>	HUMAN ANTI TRASTUZUMAB
<b>Specificity:</b>	TRASTUZUMAB
<b>Other names:</b>	HERCEPTIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD18141
<b>Isotype:</b>	HuCAL Fab monovalent
<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 E. coli. The antibody is tagged with a DYKDDDDK tag and a HIS-tag (HHHHHH) at the C-terminus of the antibody heavy chain. This antibody is supplied as a liquid.

### Preparation

Metal chelate affinity chromatography

### Buffer Solution

Phosphate buffered saline.

### Preservative Stabilisers

0.01% Thiomersal

### Approx. Protein Concentrations

Antibody concentration 0.5 mg/ml

### Immunogen

Trastuzumab

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**Specificity** **Human anti-Trastuzumab Antibody, clone AbD18141**, is a paratope specific, high affinity, anti-idiotypic antibody that specifically recognizes the monoclonal antibody drug trastuzumab and inhibits it binding to its target. The antibody can be used to measure the levels of trastuzumab and biosimilar products in bioanalytical assays.

Human Anti-Trastuzumab Antibody, clone AbD18141 is a fully human recombinant monoclonal antibody in monovalent Fab format and is suitable as a capture antibody paired with antibody clone AbD16712\_hIgG1 ([HCA176P](#)) in a pharmacokinetic (PK) bridging ELISA, to measure free drug in preclinical research and clinical trials using patient sera.

Trastuzumab, also known as Herceptin, is a drug used in the treatment of HER2 positive breast cancer and other HER2 over-expressing cancers including HER2-positive metastatic cancers of the gastrointestinal tract. Trastuzumab binds to the HER2 (or c-erbB2) proto-oncogene, an EGF receptor-like protein found on 20-30% of breast cancer cells. The binding leads to antibody mediated (complement mediated) killing of the HER2 positive cells.

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

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**Affinity** The monovalent intrinsic affinity of this antibody was measured as  $K_D=0.2$  nM by real time, label-free molecular interaction analysis on immobilized trastuzumab.

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**ELISA** This product may be used as a capture antibody in a sandwich ELISA together with [HCA176P](#) as the detection reagent.  
Protocol: [PK bridging ELISA to measure free drug](#)

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**References**

1. Bults, P. *et al.* (2016) LC-MS/MS-Based Monitoring of In Vivo Protein Biotransformation: Quantitative Determination of Trastuzumab and Its Deamidation Products in Human Plasma. [Anal Chem. 88 \(3\): 1871-7.](#)
2. Iwamoto, N. *et al.* (2018) Antibody drug quantitation in coexistence with anti-drug antibodies on nSMOL bioanalysis. [Anal Biochem. 540-541: 30-7.](#)

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**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.

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**Guarantee** 12 months from date of despatch

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**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](http://bio-rad.com/en-us/trademarks) for details.  
Herceptin is a registered trademark of Genentech, Inc.

His-tag is a registered trademark of EMD Biosciences.

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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10094 available at: 10094: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10094.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10094.pdf</a>
<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 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 Secondary Antibodies

Rabbit Anti Synthetic Peptide DYKDDDDK TAG (AHP1074...) [HRP](#)  
Goat Anti Synthetic Peptide HISTIDINE TAG (AHP1656...) [Biotin](#)  
Rat Anti Synthetic Peptide DYKDDDDK TAG (MCA4764...) [HRP](#)  
Mouse Anti Synthetic Peptide HISTIDINE TAG (MCA5995...) [HRP](#)  
Mouse Anti Synthetic Peptide HISTIDINE TAG (MCA1396...) [Alk. Phos.](#), [Biotin](#)

### Recommended Negative Controls

[HuCAL Fab-FH NEGATIVE CONTROL \(HCA045\)](#)

### Recommended Useful Reagents

[HUMAN ANTI TRASTUZUMAB \(HCA176\)](#)  
[HUMAN ANTI TRASTUZUMAB \(HCA168\)](#)  
[HUMAN ANTI TRASTUZUMAB \(HCA177\)](#)  
[HISPEC ASSAY DILUENT \(BUF049A\)](#)  
[HUMAN ANTI TRASTUZUMAB \(HCA166\)](#)  
[HUMAN ANTI TRASTUZUMAB \(HCA167\)](#)  
[MOUSE ANTI HUMAN IgG \(Fc\) CH2 DOMAIN:HRP \(MCA647P\)](#)

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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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