

Datasheet: HCA270

**BATCH NUMBER 165888**

<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>	AbD18018_hIgG4_Pro
<b>Isotype:</b>	IgG4
<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 IgG4 antibody selected from the HuCAL phage display library and expressed in a human cell line - 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>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 0.5 mg/ml
<b>Immunogen</b>	Trastuzumab

**Specificity**

**Human anti trastuzumab, clone AbD18018\_hlgG4\_Pro**, is a paratope specific, high affinity, anti-idiotypic antibody that specifically recognizes the monoclonal antibody drug trastuzumab and inhibits it binding to its target. It is a fully human recombinant monoclonal antibody with IgG4 isotype. The antibody can be used to measure the levels of trastuzumab and biosimilar products in bioanalytical assays.

Anti-trastuzumab antibody clone AbD18018 has been converted to human IgG4 isotype to offer assay developers increased flexibility in assay design. When used as an ELISA detection antibody, a secondary anti-human IgG4 antibody is required, which can be labeled according to the requirements of the user's preferred assay platform.

The antibody can be used to develop a pharmacokinetic (PK) bridging assay to measure free drug in preclinical research and clinical trials using patient sera. Antibody clones AbD16712 ([HCA166](#)) or AbD18141 ([HCA169](#)), both monovalent Fab format, are recommended as the capture antibody. Detection can be performed using clone AbD18018\_hlgG4\_Pro and an HRP conjugated anti-human IgG4 secondary antibody ([MCA2098P](#)).

This clone is also available as an IgG1 isotype in both a purified unconjugated format ([HCA177](#)) and directly conjugated to HRP ([HCA177P](#)).

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 intrinsic affinity of the monovalent form of this antibody is  $K_D=0.02$  nM as measured by real time, label-free molecular interaction analysis on immobilized trastuzumab.

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**ELISA**

This product may be used as a detection reagent in a sandwich ELISA together with an HRP conjugated anti human IgG4 secondary antibody ([MCA2098P](#)) and [HCA169](#) as the capture reagent.

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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 for details.

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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/HCA270">https://www.bio-rad-antibodies.com/SDS/HCA270</a> 10040
<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 Secondary Antibodies

Mouse Anti Human IgG4 (MCA2098...) [HRP](#)

### Recommended Useful Reagents

[HUMAN ANTI TRASTUZUMAB \(HCA169\)](#)

[HUMAN ANTI TRASTUZUMAB \(HCA177\)](#)

[HUMAN ANTI TRASTUZUMAB:HRP \(HCA177P\)](#)

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

[HUMAN ANTI TRASTUZUMAB \(HCA166\)](#)

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