

Datasheet: HCA270

Description:	HUMAN ANTI TRASTUZUMAB
Specificity:	TRASTUZUMAB
Other names:	HERCEPTIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD18018_hlgG4_Pro
Isotype:	IgG4
Quantity:	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.

	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	Human IgG4 antibody selected from the HuCAL phage display library and expressed in a human cell line - liquid.
Preparation	Purified IgG prepared by affinity chromatography on Protein A
Source	HKB-11
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 0.5 mg/ml
Immunogen	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](#)

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.

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.

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

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

Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/HCA270 10040
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	Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the HuCAL Antibodies Technical Manual .

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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