

## Datasheet: HCA257

<b>Description:</b>	HUMAN ANTI TOCILIZUMAB
<b>Specificity:</b>	TOCILIZUMAB
<b>Other names:</b>	ACTEMRA®, ROACTEMRA®
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD22155_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 supplied as a 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>	Tocilizumab and tocilizumab-sIL-6R complex

**Specificity** **Human Anti-Tocilizumab Antibody, clone AbD22155\_hlgG1** is a non-paratope specific, anti-idiotypic antibody that binds to free tocilizumab and also to tocilizumab bound to its target, human interleukin-6 receptor (IL-6R). The non-inhibitory antibody can be used to measure total levels of tocilizumab and biosimilar products in bioanalytical assays.

Clone AbD22155\_hlgG1 can be used to develop a pharmacokinetic (PK) bridging assay to measure total drug levels (free drug, partially bound and fully bound). This non-inhibitory antibody is recommended as the detection antibody, paired with the inhibitory capture antibody clone AbD21362 ([HCA252](#)). This combination enables measurement of free and partially bound tocilizumab, which is equivalent to total drug when trough serum levels are above 10 µg/ml.

Tocilizumab (RoActemra/Actemra) is a humanized IgG1/kappa monoclonal antibody approved for the treatment of moderate to severe rheumatoid arthritis and for the treatment of systemic juvenile idiopathic arthritis. The therapeutic antibody is directed against IL-6R and acts by blocking the binding of IL-6R (both the soluble form, sIL-6R, and the membrane bound form, mIL-6R) to IL-6, thus impeding the pro-inflammatory properties of this cytokine.

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

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**Affinity** The intrinsic affinity of the monovalent form of this antibody is  $K_D = 31$  nM as measured by real time, label free molecular interaction analysis on immobilized tocilizumab.

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**ELISA** This product may be used in a direct ELISA or as a detection reagent in a bridging ELISA together with [HCA252](#) as the capture reagent.  
Protocol: [PK bridging ELISA to measure total drug](#).

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**References** 1. Kashiwagi, N. *et al.* (2017) Method for measuring anti-drug antibody [US Patent Application US20170315118A1](#)

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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.  
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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/HCA257>

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<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 Useful Reagents

[HUMAN ANTI TOCILIZUMAB \(HCA252\)](#)  
[LYNX RAPID HRP ANTIBODY CONJUGATION KIT \(LNK001P\)](#)  
[LYNX RAPID HRP ANTIBODY CONJUGATION KIT \(LNK002P\)](#)  
[LYNX RAPID HRP ANTIBODY CONJUGATION KIT \(LNK003P\)](#)  
[LYNX RAPID HRP ANTIBODY CONJUGATION KIT \(LNK004P\)](#)  
[LYNX RAPID HRP ANTIBODY CONJUGATION KIT \(LNK005P\)](#)  
[LYNX RAPID HRP ANTIBODY CONJUGATION KIT \(LNK006P\)](#)  
[HISPEC ASSAY DILUENT \(BUF049A\)](#)  
[HUMAN ANTI TOCILIZUMAB \(HCA253\)](#)  
[HUMAN ANTI TOCILIZUMAB \(HCA254\)](#)  
[HUMAN ANTI TOCILIZUMAB \(HCA255\)](#)  
[HUMAN ANTI TOCILIZUMAB \(HCA256\)](#)

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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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