

## Datasheet: HCA313

<b>Description:</b>	HUMAN ANTI ECULIZUMAB
<b>Specificity:</b>	ECULIZUMAB
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD32107_hIgG1
<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 (kappa 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>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.01% Thiomersal
<b>Approx. Protein Concentrations</b>	Antibody concentration 0.5 mg/ml
<b>Immunogen</b>	Eculizumab
<b>Specificity</b>	<b>Human Anti-Eculizumab Antibody, clone AbD32107_hIgG1</b> is a paratope specific, inhibitory anti-idiotypic antibody that specifically recognizes the free humanized monoclonal antibody eculizumab. It does not recognize free human complement C5 or eculizumab in complex with C5. The antibody can be used to measure free eculizumab or

eculizumab biosimilars in patient samples.

Clone AbD32107\_hIgG1 is a fully human recombinant monoclonal antibody with IgG1 isotype and is suitable as a surrogate positive control or calibrator in an anti-drug antibody (ADA) assay. A pair of anti-eculizumab antibodies can be used to develop a pharmacokinetic (PK) bridging assay to measure free drug. This antibody is recommended as the detection reagent, paired with Anti-Eculizumab Antibody clone AbD32311 ([HCA312](#)) in monovalent Fab format as the capture antibody.

Eculizumab (Soliris) is a humanized IgG2/4 kappa antibody. The heavy chains are comprised of human IgG2 sequences in CH1, the hinge and the adjacent portion CH2, and human IgG4 sequences in the remaining part of CH2 and CH3. The drug is used to treat paroxysmal nocturnal hemoglobinuria (PNH), a rare acquired life-threatening disease of the blood characterized by destruction of red blood cells by the complement system. It also has approval as an orphan drug for treatment of atypical hemolytic uremic syndrome (aHUS). Eculizumab specifically binds to the terminal complement component 5 (C5) and inhibits the cleavage of C5 to C5a and C5b by the C5 convertase, which prevents the generation of the terminal complement complex C5b-9. Both C5a and C5b-9 cause the terminal complement-mediated events that are characteristic of PNH and aHUS. A 1:1 molar ratio of eculizumab to C5 is sufficient for C5 inhibition.

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

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**Affinity**

The intrinsic affinity of the monovalent form of Human anti Eculizumab antibody, clone AbD32107\_hIgG1 is  $K_D = 0.6$  nM as measured by real time, label free molecular interaction analysis on immobilized Eculizumab.

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**ELISA**

Human anti Eculizumab antibody, clone AbD32107\_hIgG1 can be used in an indirect ELISA or as detection antibody for Eculizumab in a bridging ELISA together with [HCA312](#) as the capture reagent. It can also be used as a surrogate positive control or calibrator in an anti-drug antibody assay.

Protocol: [PK bridging ELISA to measure free drug](#).

Protocol: [Anti-Drug Antibody assay](#).

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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.

Soliris is a trademark of Alexion Pharmaceuticals, Inc.

<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 <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> .

## Related Products

### Recommended Useful Reagents

[HUMAN ANTI ECULIZUMAB \(HCA312\)](#)

[HUMAN ANTI ECULIZUMAB \(HCA314\)](#)

[HUMAN ANTI ECULIZUMAB \(HCA315\)](#)

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

[LYNX RAPID HRP ANTIBODY CONJUGATION KIT \(LNK002P\)](#)

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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)

'M407670:221008'

**Printed on 08 Oct 2022**

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