

Datasheet: HCA312

Description:	HUMAN ANTI ECULIZUMAB
Specificity:	ECULIZUMAB
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD32311
Isotype:	HuCAL Fab monovalent
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

A monovalent human recombinant Fab (kappa 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). 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

Eculizumab

Specificity

Human Anti-Eculizumab Antibody, clone AbD32311 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.

A pair of anti-eculizumab antibodies can be used to develop a pharmacokinetic (PK) bridging assay to measure free drug. This antibody, in monovalent Fab format, is recommended as the capture antibody, paired with an HRP conjugated Anti-Eculizumab Antibody in full immunoglobulin format, clone AbD32107_hIgG1 ([HCA313P](#)) as the detection 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](#)

Affinity	The monovalent intrinsic affinity of AbD32311 was measured as $K_D = 6$ nM by real time, label free molecular interaction analysis on immobilized eculizumab
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ELISA	Clone AbD32311 can be used in an indirect ELISA or as the capture antibody for eculizumab in a bridging ELISA together with HCA313P as the detection reagent. Protocol: PK bridging ELISA to measure free drug
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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. His-tag is a registered trademark of EMD Biosciences. Soliris is a trademark of Alexion Pharmaceuticals, Inc.
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Health And Safety Information	Material Safety Datasheet documentation #10094 available at: 10094: https://www.bio-rad-antibodies.com/uploads/MSDS/10094.pdf
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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 Useful Reagents

[HUMAN ANTI ECULIZUMAB \(HCA313\)](#)

[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

'M391841:211015'

Printed on 15 Oct 2021

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