

Datasheet: HCA304

Description:	HUMAN ANTI RANIBIZUMAB (DRUG/TARGET COMPLEX)
Specificity:	RANIBIZUMAB DRUG/TARGET COMPLEX
Other names:	Lucentis
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD29928
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) at the C-terminus of the antibody heavy chain. This antibody is supplied as a liquid.

Preparation

Metal chelate affinity chromatography

Source

E. coli

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide (NaN₃)

Approx. Protein Concentrations

Antibody concentration 0.5 mg/ml

Immunogen	Ranibizumab/VEGF complex
Specificity	<p>Human Anti-Ranibizumab Antibody, clone AbD29928 specifically recognizes the Fab fragment antibody drug ranibizumab when in complex with its target, human vascular endothelial growth factor A (VEGF-A). The antibody does not recognize free ranibizumab or unbound recombinant human VEGF-A. It can be used to measure levels of ranibizumab and biosimilars in patient samples.</p> <p>Clone AbD29928 is a monovalent Fab format antibody that can be used to develop a pharmacokinetic (PK) antigen capture assay to measure free ranibizumab captured via immobilized VEGF-A.</p> <p>This antibody also recognizes bevacizumab when in complex with human VEGF-A.</p> <p>Ranibizumab (Lucentis) is a humanized Fab fragment antibody (VH3-23/kappa1), originating from the same parental mouse antibody as bevacizumab (Avastin); it has 4 amino acid exchanges in the heavy chain and 1 amino acid exchange in the light chain compared to bevacizumab. Ranibizumab was first approved to treat wet age-related macular degeneration (AMD), a common form of age-related vision loss. It is also approved for the treatment of macular edema following retinal vein occlusion, diabetic macular edema, and diabetic retinopathy. Ranibizumab inhibits angiogenesis by binding to VEGF-A, blocking its interaction with VEGF receptors on the surface of endothelial cells, and thus preventing the subsequent growth of new blood vessels.</p> <p>View a summary of all anti-ranibizumab antibodies</p>
Affinity	The intrinsic affinity of the monovalent form of Human anti Ranibizumab (Drug/target complex) antibody, clone AbD29928 is $K_D=1$ nM as measured by real time, label-free molecular interaction analysis on immobilized VEGF/ranibizumab complex.
ELISA	<p>Human anti Ranibizumab (drug/target complex) antibody, clone AbD29928 is recommended for use as the detection reagent in an antigen capture assay to measure free ranibizumab captured via immobilized VEGF</p> <p>Protocol: PK antigen capture ELISA to measure free drug .</p>
References	1. Harth, S. <i>et al.</i> (2019) Generation by phage display and characterization of drug-target complex-specific antibodies for pharmacokinetic analysis of biotherapeutics. MAbs. 11 (1): 178-190.
Storage	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
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 bio-rad.com/en-us/trademarks for details. Lucentis is a trademark of Genentech His-tag is a trademark of EMD Biosciences.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/HCA304 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

Rat Anti Synthetic Peptide DYKDDDDK TAG (MCA4764...)[HRP](#)

Recommended Useful Reagents

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

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