

Datasheet: HCA220 BATCH NUMBER 167510

Description:	HUMAN ANTI CETUXIMAB
Specificity:	CETUXIMAB
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD19834
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 (lambda 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 (NaN ₃)
Approx. Protein Concentrations	Total protein concentration 0.5 mg/ml
lmmunogen	Cetuximab.

Specificity

Human Anti-Cetuximab Antibody, clone AbD19834, is an anti-idiotypic antibody that binds specifically to cetuximab and inhibits the binding of the drug to its target, epidermal growth factor receptor (EGFR). It can be used in bioanalytical assays to measure the levels of cetuximab and biosimilar products in preclinical research and clinical trials.

Clone AbD19834 is recommended as the capture antibody in a pharmacokinetic (PK) bridging ELISA. When paired with another inhibitory antibody, HRP conjugated Anti-Cetuximab Antibody clone AbD19830_hlgG1 ($\underline{HCA221P}$), as detection antibody, free drug can be measured. When paired with the non-inhibitory Anti-Cetuximab Antibody, clone AbD19376_hlgG1 ($\underline{HCA228P}$), free and partially bound drug can be measured, which is equivalent to total drug when trough serum levels are above 4 μ g/ml.

Cetuximab (brand name Erbitux) is a chimeric monoclonal antibody drug (IgG1/kappa) approved for treatment of KRAS wild-type metastatic colorectal cancers and squamous cell carcinoma of the head and neck. This therapeutic antibody is directed against EGFR and inhibits tumor cell proliferation by blocking the interaction of epidermal growth factor (EGF) with its receptor.

View a summary of all anti cetuximab antibodies.

Affinity

The monovalent intrinsic affinity of this antibody is $K_D = 0.5$ nM as measured by real time, label free molecular interaction analysis on immobilized cetuximab.

ELISA

This product may be used in a direct ELISA or as a coating antibody in PK bridging assays together with HRP-conjugated <u>HCA221</u> or <u>HCA228</u> as the detection reagent. Protocol: <u>PK bridging ELISA to measure free drug</u>.

Further Reading

1. Gomez, D. *et al.* (2013) Cetuximab therapy in the treatment of metastatic colorectal cancer: the future frontier? <u>Int J Surg. 11 (7): 507-13.</u>

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 bio-rad.com/en-us/trademarks for details.

Erbitux is a trademark of ImClone LLC, a wholly-owned subsidiary of Eli Lilly and Company.

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/HCA220

	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 <u>HuCAL Antibodies Technical Manual</u> .

Related Products

Recommended Secondary Antibodies

Goat Anti Synthetic Peptide HISTIDINE TAG (AHP1656...) Biotin

Rat Anti Synthetic Peptide DYKDDDDK TAG (MCA4764...) HRP

Mouse Anti Synthetic Peptide HISTIDINE TAG (MCA5995...) HRP

Rabbit Anti Synthetic Peptide DYKDDDDK TAG (AHP1074...) HRP

Goat Anti Human IgG F(ab')2 (STAR126...)

Mouse Anti Synthetic Peptide HISTIDINE TAG (MCA1396...) Alk. Phos., Biotin

Recommended Useful Reagents

HUMAN ANTI CETUXIMAB (HCA228)

HUMAN ANTI CETUXIMAB (HCA221)

HISPEC ASSAY DILUENT (BUF049A)

MOUSE ANTI HUMAN IgG (Fc) CH2 DOMAIN:HRP (MCA647P)

LYNX RAPID HRP ANTIBODY CONJUGATION KIT (LNK002P)

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HRP

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M420932:230706'

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