

## Datasheet: HCA220

**BATCH NUMBER 148173**

<b>Description:</b>	HUMAN ANTI CETUXIMAB
<b>Specificity:</b>	CETUXIMAB
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD19834
<b>Isotype:</b>	HuCAL Fab monovalent
<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.

### 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

### Buffer Solution

Phosphate buffered saline

### Preservative Stabilisers

0.01% Thiomersal

### Approx. Protein Concentrations

Total protein concentration 0.5 mg/ml

### Immunogen

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\_hIgG1 ([HCA221P](#)), as detection antibody, free drug can be measured. When paired with the non-inhibitory Anti-Cetuximab Antibody, clone AbD19376\_hIgG1 ([HCA228P](#)), free and partially bound drug can be measured, which is equivalent to total drug when trough serum levels are above 4 µg/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.](#)

---

<b>Affinity</b>	The monovalent intrinsic affinity of this antibody was measured as $K_D = 0.5$ nM by real time, label free molecular interaction analysis on immobilized cetuximab.
<b>ELISA</b>	This product may be used in a direct ELISA or as a coating antibody in PK bridging assays together with HRP-conjugated <a href="#">HCA221</a> or <a href="#">HCA228</a> as the detection reagent. Protocol: <a href="#">PK bridging ELISA to measure free drug</a>
<b>Further Reading</b>	1. Gomez, D. <i>et al.</i> (2013) Cetuximab therapy in the treatment of metastatic colorectal cancer: the future frontier? <a href="#">Int J Surg. 11 (7): 507-13.</a>
<b>Storage</b>	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	Sold under license of U.S. Patents 6753136, 7785859 and 8273688 and corresponding patents. This antibody was developed by Bio-Rad, Zeppelinstr. 4, 82178 Puchheim, Germany. Erbitux® is a registered trademark of ImClone LLC, a wholly-owned subsidiary of Eli Lilly and Company. His-tag is a registered trademark of EMD Biosciences.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10094 available at: <a href="https://www.bio-rad-antibodies.com/SDS/HCA220">https://www.bio-rad-antibodies.com/SDS/HCA220</a> 10094

---

<b>Licensed Use</b>	For in vitro research purposes and for commercial applications for the provision of in vitro 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 Secondary Antibodies

Goat Anti Synthetic Peptide HISTIDINE TAG (AHP1656...)	<a href="#">Biotin</a>
Rat Anti Synthetic Peptide DYKDDDDK TAG (MCA4764...)	<a href="#">HRP</a>
Mouse Anti Synthetic Peptide HISTIDINE TAG (MCA5995...)	<a href="#">HRP</a>
Rabbit Anti Synthetic Peptide DYKDDDDK TAG (AHP1074...)	<a href="#">HRP</a>
Goat Anti Human IgG F(ab') <sub>2</sub> (STAR126...)	<a href="#">HRP</a>
Mouse Anti Synthetic Peptide HISTIDINE TAG (MCA1396...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>

### 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 \(LNK002P\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
----------------------------------	---	------------------	---	---------------	---

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)  
'M371645:200612'

Printed on 18 Jan 2024