

## Datasheet: HCA228P

<b>Description:</b>	HUMAN ANTI CETUXIMAB:HRP
<b>Specificity:</b>	CETUXIMAB
<b>Format:</b>	HRP
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD19376_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 selected from the HuCAL® phage display library and expressed in a human cell line. Conjugated to horseradish peroxidase (HRP) - 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>	IgG concentration 0.1 mg/ml
<b>Immunogen</b>	Chimeric monoclonal antibody
<b>Specificity</b>	<b>Human Anti-Cetuximab Antibody, clone AbD19376_hIgG1</b> , is a non-inhibitory anti-idiotypic antibody that binds to cetuximab. This antibody recognizes an epitope outside the cetuximab binding site and so does not inhibit the binding of the drug to its target, epidermal growth factor receptor (EGFR). This epitope is shared with other

chimeric antibodies that are highly homologous to cetuximab including infliximab but excluding rituximab. The antibody is suitable for the development of bioanalytical assays for cetuximab and biosimilars.

Clone AbD19376\_hlgG1 is a fully human recombinant monoclonal with IgG1 isotype and is suitable as a surrogate positive control or calibrator in an anti-drug antibody (ADA) assay. In addition, it is suitable as a detection antibody in pharmacokinetic (PK) bridging ELISA, with Anti-Cetuximab Antibody [HCA220](#) as the capture antibody. This combination enables measurement of free and partially bound cetuximab, 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.](#)

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<b>Affinity</b>	The monovalent intrinsic affinity of this antibody was measured as $K_D=39$ 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 detection antibody in a cetuximab bridging ELISA for PK assay development together with <a href="#">HCA220</a> as the capture reagent. Protocol: <a href="#">PK bridging ELISA to measure total drug</a>
<b>References</b>	<ol style="list-style-type: none"><li>1. Bose, M.E. <i>et al.</i> (2016) Simulated Respiratory Secretion for Use in the Development of Influenza Diagnostic Assays. <a href="#">PLoS One. 11 (11): e0166800.</a></li><li>2. Kashiwagi, N. <i>et al.</i> (2017) Method for measuring anti-drug antibody <a href="#">US Patent Application US20170315118A1</a></li></ol>
<b>Further Reading</b>	<ol style="list-style-type: none"><li>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></li></ol>
<b>Storage</b>	Store at -70°C. 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.
<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.
<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>

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**Regulatory** For research purposes only

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**Technical Advice** Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the [HuCAL Antibodies Technical Manual](#)

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## Related Products

### Recommended Useful Reagents

[HUMAN ANTI CETUXIMAB \(HCA220\)](#)

[HUMAN ANTI CETUXIMAB \(HCA221\)](#)

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

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'M371651:200612'

**Printed on 02 Mar 2021**

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