Datasheet: HCA228

BATCH NUMBER 160605

Description:	HUMAN ANTI CETUXIMAB
Specificity:	CETUXIMAB
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD19376_hIgG1
Isotype:	IgG1
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

Human IgG1 antibody selected from the HuCAL® phage display library and expressed in a human cell line. This antibody is supplied as a liquid.

Preparation

Purified IgG prepared by affinity chromatography on Protein A

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.01% Thiomersal

Approx. Protein Concentrations

Antibody concentration 0.5 mg/ml

Immunogen

Chimeric monoclonal antibody

Specificity

Human Anti-Cetuximab Antibody, clone AbD19376_hIgG1, 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_hIgG1 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.

Affinity

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.

ELISA

This product may be used in a direct ELISA or when conjugated to HRP, as a detection antibody in a cetuximab bridging ELISA for PK assay development together with HCA220 as the capture reagent.
Protocol: PK bridging ELISA to measure total drug

References

1. Bose, M.E. *et al.* (2016) Simulated Respiratory Secretion for Use in the Development of Influenza Diagnostic Assays. PLoS One. 11 (11): e0166800.
2. Kashiwagi, N. *et al.* (2017) Method for measuring anti-drug antibody US Patent Application US20170315118A1

Further Reading

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

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

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Health And Safety Information	Material Safety Datasheet documentation #10094 available at: https://www.bio-rad-antibodies.com/SDS/HCA228 10094
Licensed Use	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.
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 CETUXIMAB (HCA220)
HUMAN ANTI CETUXIMAB (HCA221)
LYNX RAPID HRP ANTIBODY CONJUGATION KIT (LNK002P)
HISPEC ASSAY DILUENT (BUF049A)

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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

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