

Datasheet: HCA299

BATCH NUMBER 151415

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| Description: | HUMAN ANTI NIVOLUMAB |
| Specificity: | NIVOLUMAB |
| Format: | Purified |
| Product Type: | Monoclonal Antibody |
| Clone: | AbD30255 |
| 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

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.01% Thiomersal

Approx. Protein Concentrations

Antibody concentration 0.5 mg/ml

Immunogen

Nivolumab

Specificity

Human Anti-Nivolumab Antibody, clone AbD30255 is a paratope specific, inhibitory

anti-idiotypic antibody that specifically recognizes the monoclonal antibody drug nivolumab. The antibody does not recognize recombinant human programmed cell death 1 (PD-1) or nivolumab in complex with recombinant human PD-1 and can be used to measure free nivolumab levels in serum from patients.

A pair of anti-nivolumab antibodies can be used to develop a pharmacokinetic (PK) bridging assay to measure free drug. This antibody, in monovalent Fab format, is recommended as the capture antibody, paired with an HRP conjugated Anti-Nivolumab Antibody in full immunoglobulin format, clone AbD30258_hIgG1 ([HCA301](#)) as the detection antibody.

Nivolumab (Opdivo) is a fully human antibody (IgG4/kappa), with the heavy chain mutation S228P (IgG4-Pro). It is used as a first line treatment for inoperable or metastatic melanoma in combination with ipilimumab if the cancer does not have a mutation in BRAF. It is also approved for treatment of advanced non-small cell lung cancer, advanced renal cell carcinoma, classical Hodgkin's lymphoma and advanced head and neck squamous cell carcinoma. Nivolumab is a checkpoint inhibitor and acts as an immuno-modulator by blocking ligand activation of PD-1 receptor on T cells, thereby activating T cells to attack the cancer. Nivolumab blocks PD-1 interaction with PD-1 ligand (PD-L1) and PD-1 ligand 2 (PD-L2).

[View a summary of all anti-nivolumab antibodies](#)

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| Affinity | The monovalent intrinsic affinity of AbD30255 was measured as $K_D = 0.5$ nM by real time, label free molecular interaction analysis on immobilized nivolumab |
| ELISA | Clone AbD30255 can be used in a direct or indirect ELISA system or as capture antibody for nivolumab in a bridging ELISA together with HCA301 (AbD30258_hIgG1) as the detection reagent. Protocol: PK bridging ELISA to measure free drug |
| Storage | +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. |
| Guarantee | 12 months from date of despatch |
| Acknowledgements | 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. Opdivo is a trademark of Bristol-Myers Squibb Company. His-tag is a registered trademark of EMD Biosciences. |
| Health And Safety Information | Material Safety Datasheet documentation #10094 available at: https://www.bio-rad-antibodies.com/SDS/HCA299 10094 |

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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...) [Purified](#)

Mouse Anti Synthetic Peptide HISTIDINE TAG (MCA5995...) [HRP](#)

Recommended Negative Controls

[HuCAL Fab-FH NEGATIVE CONTROL \(HCA045\)](#)

Recommended Useful Reagents

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

[LYNX RAPID HRP ANTIBODY CONJUGATION KIT \(LNK002P\)](#)

[HUMAN ANTI NIVOLUMAB \(HCA301\)](#)

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