

Datasheet: HCA248

Description:	HUMAN ANTI NATALIZUMAB
Specificity:	NATALIZUMAB
Other names:	TYSABRI®
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD21375
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 (kappa 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 (NaN₃)

Approx. Protein Concentrations

Antibody concentration 0.5 mg/ml

Specificity

Human Anti-Natalizumab Antibody, clone AbD21375 is a paratope specific, anti-idiotypic antibody that specifically recognizes free natalizumab but not free human alpha-4/beta-1 integrin or the drug/integrin complex. It inhibits the binding of natalizumab to its target and can be used to measure levels of free natalizumab and biosimilar products in bioanalytical and patient monitoring assays.

A pair of anti-natalizumab antibodies can be used to develop a pharmacokinetic (PK) bridging assay to measure free drug. This antibody, in monovalent Fab format, is recommended as a capture antibody, paired with an HRP conjugated Anti-Natalizumab Antibody in full immunoglobulin format, clone AbD21375_hlgG1 ([HCA249](#)) as the detection antibody.

Natalizumab (Tysabri) is a humanized IgG4/kappa monoclonal antibody approved as a monotherapy for the treatment of relapsing forms of multiple sclerosis and for the treatment of Crohn's disease. It is directed against alpha-4 integrin (CD49d), and binds to alpha-4/beta-1 integrin on the surface of circulating leucocytes, except neutrophils. It is believed to act by blocking the interaction of alpha-4/beta-1 integrin with vascular cell adhesion molecule-1 (VCAM-1), preventing the adherence and transport of inflammatory immune cells across the intestinal lining and blood-brain barrier.

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

Affinity

The intrinsic affinity of the monovalent form of this antibody is $K_D = 2.1 \text{ nM}$ as measured by real time, label free molecular interaction analysis on immobilized natalizumab.

ELISA

This product may be used in either a direct ELISA or indirect ELISA both as a capture reagent and as a detection reagent.

Protocol: [PK bridging ELISA to measure free drug](#).

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 $2-8^{\circ}\text{C}$ 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.

Tysabri is a trademark Biogen Idec and Elan.

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/HCA248>

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 HuCAL Antibodies Technical Manual .

Related Products

Recommended Useful Reagents

[RAT ANTI DYKDDDDK TAG:HRP \(MCA4764P\)](#)
[LYNX RAPID HRP ANTIBODY CONJUGATION KIT \(LNK002P\)](#)
[MOUSE ANTI PENTA HISTIDINE TAG:HRP \(MCA5995P\)](#)
[HISPEC ASSAY DILUENT \(BUF049A\)](#)
[HUMAN ANTI NATALIZUMAB \(HCA249\)](#)
[HUMAN ANTI NATALIZUMAB \(HCA250\)](#)

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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
'M428405:240301'

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