

## Datasheet: HCA249

<b>Description:</b>	HUMAN ANTI NATALIZUMAB
<b>Specificity:</b>	NATALIZUMAB
<b>Other names:</b>	TYSABRI®
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD21375_hlgG1
<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.

### 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

Natalizumab

### Specificity

**Human Anti-Natalizumab Antibody, clone AbD21375\_hlgG1** 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.

Clone AbD21375\_hIgG1 is a fully human recombinant monoclonal antibody with IgG1 isotype and is suitable as a surrogate positive control or calibrator in an anti-drug antibody (ADA) assay. Additionally it can be used to develop a pharmacokinetic (PK) bridging assay to measure free drug. This antibody is recommended as the detection antibody, paired with Anti-Natalizumab Antibody clone AbD21375 ([HCA248](#)) in monovalent Fab format as the capture 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](#)

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<b>Affinity</b>	The monovalent intrinsic affinity of this antibody was measured as $K_D = 2.1$ nM by real time, label free molecular interaction analysis on immobilized natalizumab.
<b>ELISA</b>	This product may be used in a direct ELISA or as a detection reagent in a bridging ELISA together with <a href="#">HCA248</a> as the capture reagent. Protocol: <a href="#">PK bridging ELISA to measure free drug</a> This antibody is fully human and can be used as a reference standard in an ADA assay. Protocol: <a href="#">ADA bridging ELISA</a>
<b>References</b>	1. Kashiwagi, N. <i>et al.</i> (2017) Method for measuring anti-drug antibody <a href="#">US Patent US20170315118A1</a>
<b>Storage</b>	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.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	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 <a href="#">bio-rad.com/en-us/trademarks</a> for details. Tysabri® is a registered trademark Biogen Idec and Elan.
<b>Health And Safety</b>	Material Safety Datasheet documentation #10094 available at:

<b>Information</b>	10094: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10094.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10094.pdf</a>
<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 Useful Reagents

[HUMAN ANTI NATALIZUMAB \(HCA248\)](#)

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

[HUMAN ANTI NATALIZUMAB \(HCA250\)](#)

[MOUSE ANTI HUMAN IgG \(Fc\) CH2 DOMAIN:HRP \(MCA647P\)](#)

[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](https://www.bio-rad-antibodies.com/datasheets)  
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