

Datasheet: HCA249

BATCH NUMBER 154168

Description:	HUMAN ANTI NATALIZUMAB
Specificity:	NATALIZUMAB
Other names:	TYSABRI®
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD21375_hlgG1
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	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](#)

Affinity	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.
ELISA	This product may be used in a direct ELISA or as a detection reagent in a bridging ELISA together with HCA248 as the capture reagent. Protocol: PK bridging ELISA to measure free drug This antibody is fully human and can be used as a reference standard in an ADA assay. Protocol: ADA bridging ELISA
References	1. Kashiwagi, N. <i>et al.</i> (2017) Method for measuring anti-drug antibody US Patent US20170315118A1
Storage	Store at +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. Tysabri® is a registered trademark Biogen Idec and Elan.
Health And Safety Information	Material Safety Datasheet documentation #10094 available at: https://www.bio-rad-antibodies.com/SDS/HCA249

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 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

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