

Datasheet: HCA249P

Description:	HUMAN ANTI NATALIZUMAB:HRP
Specificity:	NATALIZUMAB
Other names:	TYSABRI®
Format:	HRP
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. Conjugated to horseradish peroxidase (HRP) - liquid.

Preparation

Purified IgG prepared by affinity chromatography on Protein A

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.01% Thiomersal

Approx. Protein Concentrations

IgG concentration 0.1 mg/ml

Immunogen

Natalizumab

Specificity

Human anti natalizumab, clone AbD21375_hlgG1 is a Type 1 anti-idiotypic antibody that specifically recognizes free natalizumab but not free human alpha4-beta1 integrin or the drug/alpha4-beta1 integrin complex. Clone AbD21375_hlgG1 inhibits the binding of natalizumab to alpha4-beta1 integrin and can be used to measure free natalizumab levels in serum from patients. This clone can also be used for pharmacokinetic (PK) assay development or in the development and calibration of anti-drug antibody (ADA) assays.

Natalizumab, marketed under the brand name 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. Natalizumab is also being evaluated for potential clinical use in the treatment of B-cell malignancies. This therapeutic antibody, directed against alpha-4 integrin (CD49d), binds to alpha-4/beta-1 integrin on the surface of circulating leucocytes. 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.

Clone AbD21375_hlgG1 is one of a range of Type 1 ([HCA248](#), [HCA250](#)), anti-idiotypic antibodies to natalizumab available from Bio-Rad and forms part of a wider and expanding portfolio of anti-idiotypic antibodies that have been developed for the detection of biotherapeutics.

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
References	1. Kashiwagi, N. <i>et al.</i> (2017) Method for measuring anti-drug antibody US Patent US20170315118A1
Storage	Store at -70°C. 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.
Shelf Life	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: 10094: https://www.bio-rad-antibodies.com/uploads/MSDS/10094.pdf
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 \(HCA248\)](#)

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

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

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