

## Datasheet: HCA248G

**BATCH NUMBER 150367**

<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
<b>Isotype:</b>	HuCAL Fab monovalent
<b>Quantity:</b>	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

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

### Buffer Solution

Phosphate buffered saline

### Preservative Stabilisers

0.01% Thiomersal

### Approx. Protein Concentrations

Antibody concentration 1.0 mg/ml

### Immunogen

Natalizumab

**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](#)

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**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.

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**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](#)

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**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

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**Guarantee**

12 months from date of despatch

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**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. His-tag is a registered trademark of EMD Biosciences.

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**Health And Safety Information**

Material Safety Datasheet documentation #10094 available at: <https://www.bio-rad-antibodies.com/SDS/HCA248G10094>

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**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.

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**Regulatory** For research purposes only

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**Technical Advice** Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the [HuCAL Antibodies Technical Manual](#)

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## Related Products

### Recommended Useful Reagents

[RAT ANTI DYKDDDDK TAG:HRP \(MCA4764P\)](#)

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

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

[MOUSE ANTI PENTA HISTIDINE TAG:HRP \(MCA5995P\)](#)

[HUMAN ANTI NATALIZUMAB \(HCA249\)](#)

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

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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'M371675:200612'

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