Datasheet: HCA239Z

Description:	HUMAN ANTI gp41:Preservative Free
Specificity:	gp41
Other names:	HIV1 ENV
Format:	Preservative Free
Product Type:	Monoclonal Antibody
Clone:	AbD08066
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	▪			
Functional Assays (1)	▪			

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.

(1)**This antibody demonstrates neutralizing properties**

Target Species

Viral

Product Form

A monovalent human recombinant Fab (lambda light chain) selected from the HuCAL phage display library, expressed in *E. coli*. The antibody is tagged with a myc-tag (EQKLISEEDL) 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

None present

Approx. Protein

Total protein concentration 0.5 mg/ml

Concentrations	
Immunogen	Recombinant protein corresponding to a conserved internal trimeric coiled-coil of the N-heptad repeat (N-HR) of HIV-1 gp41.
External Database Links	**UniProt:** Q76270 Related reagents
Specificity	**Human Anti-gp41 Antibody, clone AbD08066** recognizes an epitope derived from the ectodomain of the Human Immunodeficiency Virus (HIV) type 1 envelope glycoprotein 41 (gp41). This antibody was selected from the Human Combinatorial Antibody Library (HuCAL®) by panning on an HIV gp41-derived chimeric construct, NCCG-gp41, as described in Louis *et al.* 2001. The fusion of HIV-1 with the membrane of the host cell is the first step in the process of viral infection and replication and involves conformational changes in the gp120 and gp41 viral envelope proteins. It is now known that the HIV gp41 contains a highly conserved N-heptad repeat (N-HR) region which is conserved in many HIV-1 strains and as such it is hypothesized that this maybe a target for developing a vaccine (Gustchina *et al.* 2010). Clone AbD8066 is a unique antibody that has been shown to be broadly neutralizing across a wide panel of B and C type HIV-1 viruses. The crystal structure of the N-HR mimetic 5-Helix with this antibody has been reported (Gustchina *et al.* 2010, Protein Data Bank ID 3MA9).
ELISA	This product is suitable for use in indirect ELISA applications.
References	1. Gustchina, E. *et al.* (2010) Structural basis of HIV-1 neutralization by affinity matured Fabs directed against the internal trimeric coiled-coil of gp41. PLoS Pathog. 6: e1001182. 2. Gustchina, E. *et al.* (2009) Affinity maturation by targeted diversification of the CDR-H2 loop of a monoclonal Fab derived from a synthetic naïve human antibody library and directed against the internal trimeric coiled-coil of gp41 yields a set of Fabs with improved HIV-1 neutralization potency and breadth. Virology. 393: 112-9. 3. Gustchina, E *et al*. (2013) Complexes of Neutralizing and Non-Neutralizing Affinity Matured Fabs with a Mimetic of the Internal Trimeric Coiled-Coil of HIV-1 gp41. PLoS One. 8: e78187
Storage	Store at -20°C only. 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	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. His-tag is a trademark of EMD Biosciences.
Health And Safety Information	Material Safety Datasheet documentation #10162 available at: 10162: https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf
Licensed Use	For *in vitro* research purposes only, unless otherwise specified in writing by 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 Secondary Antibodies

Mouse Anti Synthetic Peptide HISTIDINE TAG (MCA5995...) HRP

Recommended Negative Controls

HuCAL Fab-MH NEGATIVE CONTROL (HCA051)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	**Europe**	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

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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