Datasheet: HCA338

BATCH NUMBER 164220

Description:	HUMAN ANTI CAS9
Specificity:	CAS9
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD34371kg
Isotype:	IgG
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
Western Blotting	▪			

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.

Target Species

Streptococcus sp.

Product Form

Recombinant chimeric human/rabbit IgG antibody selected from the HuCAL phage display library and expressed in a human cell line. In this antibody, the VH-CH1 regions and light chains are human while the Fc region is derived from rabbit IgG. This antibody is supplied as a liquid.

Preparation

Purified IgG prepared by affinity chromatography on Protein A

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide (NaN_3)

Approx. Protein Concentrations

IgG concentration 0.5 mg/ml

Immunogen

Wild type recombinant Cas9 from *Streptococcus pyogenes*, expressed in *E.coli.*

External Database Links	**UniProt:** Q99ZW2 Related reagents
Specificity	**Human anti Cas9 antibody, clone AbD34371kg** recognizes CRISPR-associated endonuclease Cas9, also known as Cas9 and SpCas9. Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR), together with CRISPR-associated (cas) genes, form an adaptive immune system found in some prokaryotes including *Streptococcus pyogenes*. The system allows direct gene editing in response to viral (bacteriophage) threat, allowing the prokaryote to create a sequence-specific memory of the infection and provide immunity (Sternberg *et al.* 2014). Cas9 facilitates gene editing as an RNA-guided endonuclease and its guide sequence can be easily altered in the lab, reprogramming Cas9 to target new sites (Wang *et al.* 2016). Importantly, Cas9 can be co-opted for in vitro genome alteration in mammalian cells, allowing production of modified clonal cell lines within 2-3 weeks (Ann Ran *et al.* 2013). Co-opting the CRISPR-Cas9 system has strong implications for personalized medicine (Xing and Meng 2020), and successful treatment of patients with inherited disease has been achieved using CRISPR (Ribeil *et al.* 2017). Human anti Cas9 antibody, clone AbD34371kg, has been tested in western blotting. Anti rabbit IgG specific antibodies are recommended as secondary detection reagents.
Storage	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.
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.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/HCA338 10040
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.

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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