

Datasheet: HCA147

Description:	HUMAN ANTI HUMAN ACTIN BETA
Specificity:	ACTIN BETA
Other names:	ACTB
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD12141
Isotype:	HuCAL Fab bivalent
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
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/500 - 1/5000
Functional Assays			▪	

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 Human

Species Cross Reactivity

Reacts with: Mouse, Rat
Based on sequence similarity, is expected to react with: Vertebrates, Invertebrates
N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

A bivalent human recombinant Fab (lambda light chain) selected from the HuCAL® phage display library, expressed in *E. coli*. This Fab fragment is dimerized via a helix-turn-helix

motif. The antibody is tagged with myc-tag (EQKLISEEDL) and a double extended Strep-tag at the C-terminus of the antibody heavy chain. This antibody is supplied liquid.

Preparation	StrepTactin affinity chromatography
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.01% Thiomersal
Approx. Protein Concentrations	Ig concentration 0.5 mg/ml
Immunogen	Purified human beta-actin
External Database Links	UniProt: P60709 Related reagents Entrez Gene: 60 ACTB Related reagents
RRID	AB_10612234
Specificity	<p>Human anti human actin beta antibody, clone AbD12141 recognizes the 42 kDa product of the ACTB gene, cytoplasmic actin beta, also known as actin cytoplasmic 1. Actin beta is ubiquitously expressed in all eukaryotic cells, playing a critical role in cell survival, motility and re-modelling.</p> <p>Actin beta is highly conserved throughout evolution, with all vertebrate and invertebrate species reviewed to date bearing a 98% or greater amino acid primary sequence identity to human actin beta. Plant species also exhibit a high degree of primary sequence conservation displaying considerable similarity to animal actin beta. For example, nearly 90% sequence identity is observed between the human ACTB and the model plant species <i>Arabidopsis thaliana</i> (mouse eared cress) ACT1 (<i>Arabidopsis</i>) gene products.</p> <p>Actin beta is a commonly used Western blotting loading control for cell and tissue lysates across many species due to its ubiquitous expression and evolutionary conservation rendering antibodies against this target cross reactive with protein preparations from many different organisms.</p>
Western Blotting	HCA147 detects a band of approximately 42 kDa in HeLa cell lysates. HCA147 is suitable for use as a loading control.
References	<ol style="list-style-type: none">Walsh, C.A. <i>et al.</i> (2020) The mevalonate precursor enzyme HMGCS1 is a novel marker and key mediator of cancer stem cell enrichment in luminal and basal models of breast cancer. PLoS One. 15 (7): e0236187.Lederhofer, J. <i>et al.</i> (2018) Development of a Virosomal RSV Vaccine Containing 3D-PHAD[®] Adjuvant: Formulation, Composition, and Long-Term Stability. Pharm Res. 35

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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 #10094 available at: 10094: https://www.bio-rad-antibodies.com/uploads/MSDS/10094.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 STREP-TAG CLASSIC (MCA2489...) [HRP](#)

Mouse Anti Human C-MYC (MCA2200...)

[ALEXA FLUOR® 488](#), [ALEXA FLUOR® 647](#), [Alk. Phos.](#), [Biotin](#), [FITC](#), [HRP](#)

Recommended Useful Reagents

[HuCAL Fab-dHLX-MSx2 NEGATIVE CONTROL \(HCA102\)](#)

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

'M391622:211015'

Printed on 21 Mar 2022

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