

## Datasheet: HCA147

**BATCH NUMBER 153727**

<b>Description:</b>	HUMAN ANTI HUMAN ACTIN BETA
<b>Specificity:</b>	ACTIN BETA
<b>Other names:</b>	ACTB
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD12141
<b>Isotype:</b>	HuCAL Fab bivalent
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	<p>Reacts with: Mouse, Rat</p> <p>Based on sequence similarity, is expected to react with: Vertebrates, Invertebrates</p> <p><b>N.B.</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.</p>
<b>Product Form</b>	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.

<b>Preparation</b>	StrepTactin affinity chromatography
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.01% Thiomersal
<b>Approx. Protein Concentrations</b>	Ig concentration 0.5 mg/ml
<b>Immunogen</b>	Purified human beta-actin
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P60709</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">60</a>    ACTB    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_10612234
<b>Specificity</b>	<p><b>Human anti human actin beta antibody, clone AbD12141</b> 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>
<b>Western Blotting</b>	HCA147 detects a band of approximately 42 kDa in HeLa cell lysates. HCA147 is suitable for use as a loading control.
<b>References</b>	1. 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. <a href="#">PLoS One. 15 (7): e0236187.</a>

<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>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.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	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.
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10094 available at:</p> <p><a href="https://www.bio-rad-antibodies.com/SDS/HCA147">https://www.bio-rad-antibodies.com/SDS/HCA147</a></p> <p>10094</p>
<b>Licensed Use</b>	For in vitro research purposes only, unless otherwise specified in writing by Bio-Rad.
<b>Regulatory</b>	For research purposes only
<b>Technical Advice</b>	<p>Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the <a href="#">HuCAL Antibodies Technical Manual</a></p>

## Related Products

### Recommended Secondary Antibodies

Mouse Anti Human C-MYC (MCA2200...) [ALEXA FLUOR® 488](#), [ALEXA FLUOR® 647](#), [Biotin](#), [FITC](#), [HRP](#)

Mouse Anti Synthetic Peptide STREP-TAG CLASSIC (MCA2489...) [HRP](#)

### Recommended Useful Reagents

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

<b>North &amp; South America</b>	<p>Tel: +1 800 265 7376</p> <p>Fax: +1 919 878 3751</p> <p>Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a></p>	<b>Worldwide</b>	<p>Tel: +44 (0)1865 852 700</p> <p>Fax: +44 (0)1865 852 739</p> <p>Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a></p>	<b>Europe</b>	<p>Tel: +49 (0) 89 8090 95 21</p> <p>Fax: +49 (0) 89 8090 95 50</p> <p>Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a></p>
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