

Datasheet: HCA147D800

Description:	HUMAN ANTI HUMAN ACTIN BETA:DyLight®800
Specificity:	ACTIN BETA
Other names:	ACTB
Format:	DyLight®800
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	▪			
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	<p>Reacts with: Mouse, Rat</p> <p>Based on sequence similarity, is expected to react with: Vertebrates, Invertebrates</p> <p>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.</p>
Product Form	A bivalent human recombinant Fab (lambda light chain) selected from the HuCAL® phage display library, expressed in <i>E. coli</i> . 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 conjugated to DyLight 800 - liquid.

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Dylight®800	777	794
Preparation	StrepTactin affinity chromatography		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)		
Approx. Protein Concentrations	1.0 mg/ml		
Immunogen	Purified human beta-actin		
External Database Links	UniProt: P60709 Related reagents		
	Entrez Gene: 60 ACTB Related reagents		
RRID	AB_10720223		
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	HCA147D800 is suitable for use as a loading control		
References	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. [PLoS One. 15 \(7\): e0236187.](#)

2. Lederhofer, J. *et al.* (2018) Development of a Virosomal RSV Vaccine Containing 3D-PHAD[®] Adjuvant: Formulation, Composition, and Long-Term Stability. [Pharm Res. 35 \(9\): 172.](#)

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.

DyLight[®] is a trademark of Thermo Fisher Scientific Inc. and its subsidiaries.

Health And Safety Information Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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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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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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