

Datasheet: HCA147D680

Description:	HUMAN ANTI HUMAN ACTIN BETA:DyLight®680
Specificity:	ACTIN BETA
Other names:	ACTB
Format:	DyLight®680
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	■			1/1000 - 1/10000
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.

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 conjugated to DyLight 680 - liquid

Max Ex/Em	Fluorophore	Emission Max (nm)	Excitation Max (nm)
	DyLight®680	712	692

Preparation

StrepTactin affinity chromatography

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	Total protein concentration 1.0 mg/ml
Immunogen	Purified Human beta-Actin
External Database Links	<p>UniProt: P60709 Related reagents</p> <p>Entrez Gene: 60 ACTB Related reagents</p>
Specificity	<p>Human anti human actin beta antibody, clone 12141 recognizes the 42kDa 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	HCA147D680 is suitable for use as a loading control
Storage	<p>Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use</p>
Shelf Life	12 months from date of despatch
Acknowledgements	<p>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.</p> <p>DyLight® is a trademark of Thermo Fisher Scientific Inc. and its subsidiaries</p>
Health And Safety Information	<p>Material Safety Datasheet documentation available at: Material Safety Datasheet documentation #10040 available at https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</p>
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](#)

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