

Datasheet: HCA357

Description:	ANTI H3-S10-ADP-RIBOSE
Specificity:	H3-S10-ADP-RIBOSE
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD33644
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
ELISA	▪			
Western Blotting	▪			2 ug/ml

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	Protein/peptide tag
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 bivalent by dimerization of the bacterial alkaline phosphatase fusion protein. The antibody is tagged with a DYKDDDDK tag and a HIS-tag (HHHHHH) at the C-terminus of the antibody heavy chain. This antibody is supplied as liquid.
Preparation	Metal chelate affinity chromatography
Source	<i>E.coli</i>
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Carrier Free	Yes

Approx. Protein Concentrations	Total protein concentration 0.5 mg/ml
Immunogen	ARTKQTARKS(ADPr)TGGKAC
Specificity	<p>Anti-H3-S10-ADP-ribose antibody, clone AbD33644, recognizes Histone H3, ADP-ribosylated at Serine 10. This antibody also recognizes the less abundant H3 site H3-S28-ADP-ribose, however this is with a lower affinity and is due to the similarities between sequences flanking the two H3 target sites. This clone does not detect poly-ADP-ribose in a site-specific manner (Bonfiglio et al. 2020).</p> <p>Poly(ADP-ribose) polymerase 1 (PARP1) is an early responder to DNA damage in human cells. Upon binding to genomic lesions PARP1 is able to transfer a mono- or poly-ADP-ribose residue from nicotinamide adenine dinucleotide (NAD⁺) to their substrate proteins, for chromatin decompaction and repair factor recruitment (Bütepage et al. 2015, Suskiewicz et al. 2020).</p> <p>During the DNA damage response, serine is the primary target for PARP1 ADP-ribosylation which uses Histone PARylation factor 1 (HPF1) as an accessory factor to switch the amino-acid specificity of PARP1 from aspartate/glutamate to serine residues (Bonfiglio et al. 2017, Suskiewicz et al. 2020). During the DNA damage response PARP1 and HPF1 primarily target PARP1 itself and histone H3, ribosylating these targets.</p> <p>This clone has been used in Western blotting, in the context of the DNA damage response with Histone H3 Ser-ADPr sites recognized by this antibody in lysates from Wild Type and ARH3 KO cells treated with H₂O₂ (Bonfiglio et al. 2020).</p>
Storage	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
Guarantee	12 months from date of despatch
Acknowledgements	<p>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.</p> <p>His-tag is a trademark of EMD Biosciences.</p>
Health And Safety Information	<p>Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/HCA357</p> <p>10040</p>
Regulatory	For research purposes only

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
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batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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