

## Datasheet: HCA356

<b>Description:</b>	ANTI PARP1-S499-ADP-RIBOSE
<b>Specificity:</b>	PARP1-S499-ADP-RIBOSE
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD34251
<b>Isotype:</b>	IgG
<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
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.

<b>Target Species</b>	Protein/peptide tag
<b>Product Form</b>	Human/Rabbit IgG chimera (rabbit CH2 and CH3) antibody selected from the HuCAL phage display library and expressed in a human cell line. This antibody is supplied as a liquid.
<b>Preparation</b>	Purified recombinant IgG prepared by affinity chromatography on Protein A from a mammalian cell line
<b>Source</b>	HKB-11
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes

<b>Approx. Protein Concentrations</b>	Total protein concentration 0.5 mg/ml
<b>Immunogen</b>	APRGKS(ADPr)GAALSKKSKGQVGGK
<b>Specificity</b>	<p><b>Anti-PARP1-S499-ADP-ribose antibody, clone AbD34251</b>, recognizes PARP1, ADP-ribosylated at Serine 499. 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<sup>+</sup>) to their substrate proteins, for chromatin decompaction and repair factor recruitment (<a href="#">Bütepage et al. 2015</a>, <a href="#">Suskiewicz et al. 2020</a>).</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 (<a href="#">Bonfiglio et al. 2017</a>, <a href="#">Suskiewicz et al. 2020</a>). PARP1/HPF1 during DNA damage response, primarily target PARP1 itself and histone H3, ribosylating these substrate proteins.</p> <p>This PARP1-S499ADPr antibody, clone AbD34251 was generated using an ADP-ribosylated PARP1S499 antigen. Characterization has demonstrated the antibody does not bind any other Ser-ADP-ribosylated peptides tested and binds via three residues before and one after the modified Serine. This clone does not detect poly-ADP-ribose in a site-specific manner (<a href="#">Bonfiglio et al. 2020</a>).</p>
<b>Storage</b>	<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.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	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 <a href="http://bio-rad.com/en-us/trademarks">bio-rad.com/en-us/trademarks</a> for details.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/HCA356">https://www.bio-rad-antibodies.com/SDS/HCA356</a> 10040
<b>Regulatory</b>	For research purposes only

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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](http://bio-rad-antibodies.com/datasheets)

