

Datasheet: TZA020

Description:	ANTI MONO-ADP-RIBOSE
Specificity:	MONO-ADP-RIBOSE
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD43647ad
Isotype:	Fab antibody
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	▪			
Immunofluorescence	▪			

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 monovalent human recombinant Fab selected from the HuCAL® phage display library, Expressed in a proprietary <i>E. coli</i> strain. The antibody is tagged with a DYKDDDDK tag, a SpyTag version 2 (VPTIVMVDAYKRYK) and a His6-tag (HHHHHH) at the C-terminus of the antibody heavy chain. This antibody is supplied as a liquid.
Preparation	Recombinant Fab antibody expressed in <i>E. coli</i> and purified by affinity chromatography
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.0095% MIT
Carrier Free	Yes
Approx. Protein	Total protein concentration 0.5 mg/ml

Concentrations

Immunogen ARTKQTARKS(adpr)TGGKAPRKQLAGGK

Specificity **Anti mono-ADP-ribose antibody, clone AbD43647ad**, recognizes mono-adenosine diphosphate (ADP)-ribosylation. ADP-ribosylation is a reversible post-translational modification that occurs in multicellular organisms as well as some lower unicellular eukaryotes, but is absent in prokaryotes and yeast ([Bürkle 2005](#)). ADP ribosylation has been shown to play critical roles in many physiological and pathological processes, including bacterial pathogenesis and signaling and metabolism to control chromatin-related processes including transcription and DNA repair ([Bonfiglio et al. 2020](#), [Bütepage et al. 2015](#)).

Members of the ADP-ribosyltransferase (ART) superfamily of proteins including the poly(ADP-ribose) polymerases (PARPs) subfamily, catalyze the transfer of ADP-ribose from nicotinamide adenine dinucleotide (NAD⁺) onto substrate protein via N-, O-, or S-glycosidic linkages. These transferases are able to transfer a single ADP-ribose residue to their substrate proteins, in a process known as mono-ADP-ribosylation ([Bütepage et al. 2015](#)).

The anti mono-ADP-ribose antibody, clone AbD43647ad is a mono-selective ADP-ribose antibody with a preference for mono-Ser-ADPr catalysed by the poly(ADP-ribose) polymerase 1 PARP1. Clone AbD43647ad is tagged with a SpyTag2 at the C-terminus of the Fab heavy chain, enabling the user to couple it to a [SpyCatcher reagent](#) for conversion to alternative formats in less than an hour.

This clone AbD43647ad is a mono-selective ADP-ribose antibody which was generated using an H3S10ADPr peptide as the antigen. This clone is specific for mono-ADPr and has a preference for Ser-mono-ADPr.

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. Should this product contain a precipitate we recommend microcentrifugation before use.

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.
His-tag is a registered trademark of EMD Biosciences

Health And Safety Information Material Safety Datasheet documentation #20479 available at:
20479: <https://www.bio-rad-antibodies.com/uploads/MSDS/20479.pdf>

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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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