

Datasheet: TZA0117P

Description:	ANTI POLY-ADP-RIBOSE:HRP
Specificity:	POLY-ADP-RIBOSE
Format:	HRP
Product Type:	Monoclonal Antibody
Clone:	AbD64138
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	▪			

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
Product Form	A bivalent human recombinant Fab generated by coupling of the monovalent SpyTagged Fab TZA0117 with a HRP conjugated BiSpyCatcher version 2 (TZC002P). The coupled antibody has two DYKDDDDK tags and three His6-tags. It contains SpyTag3 peptide (BLP086) in 5-fold molar excess to block any unreacted Catcher sites. This antibody is supplied as a liquid.
Preparation	Recombinant Fab antibody expressed in <i>E. coli</i> and purified by affinity chromatography
Source	<i>E. coli</i> .
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.0095% MIT
Carrier Free	Yes

Approx. Protein Concentrations	Total protein concentration 0.5 mg/ml
Immunogen	ARTKQTARKS(polyADPr)TGGKAC
Specificity	Anti poly-ADP-ribose antibody, clone AbD64138, recognizes poly-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. They are also able to attach additional ADP-ribose residues to create either linear or branched chains of ADP-ribose, known as poly-ADP-ribosylation (Poly-ADPr) (Bütepage et al. 2015). This anti poly-ADP-ribose antibody, clone AbD64138, specifically and sensitively recognizes poly-ADPr but not mono-ADPr. Clone AbD64138 is tagged with a SpyTag at the C-terminus of the Fab heavy chain, enabling the user to couple the purified format to a SpyCatcher reagent for conversion to alternative formats in less than an hour.
References	1. Dauben, H. <i>et al.</i> (2026) Versatile and sensitive detection of mono- and poly(ADP-ribosyl)ation reveals XRCC1-dependent remodelling of PARP1 signalling. Nat Commun. 17 (1): 3216.
Further Reading	1. Dauben, H. <i>et al.</i> (2023) A chemical biology/modular antibody platform for ADP-ribosylation signaling. Trends Biochem Sci. 48 (10): 910-911. 2. Bonfiglio, J.J & Matic, I. (2020) Site-Specific Serine Adp-Ribosylated Proteins And Peptides And Method For Producing The Same World Intellectual Property Organization International Publication no. WO2020058277A1
Storage	This product is shipped frozen. When ready to use, thaw and aliquot the sample as needed. Store aliquots at -70°C, if available, otherwise store at -20°C. It is not recommended to keep aliquots at 4°C for more than one week.
Guarantee	12 months from date of despatch
Acknowledgements	Bio-Rad has obtained the right for the manufacture and commercialization of the antibodies from Max-Planck-Innovation GmbH, the technology transfer office of the Max Planck Institute for Biology of Ageing. Further information on the Serine ADP-ribosylation

technology used to generate and characterize the antibodies can be found here: [Dauber et al. 2023](#) and [Bonfiglio et al. 2020](#).

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Health And Safety Information	Material Safety Datasheet documentation #20479 available at: https://www.bio-rad-antibodies.com/SDS/TZA0117P
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Regulatory	For research purposes only
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Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)
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