Datasheet: TZA021

Description:	ANTI MONO-ADP-RIBOSE
Specificity:	MONO-ADP-RIBOSE
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD33205
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 and expressed in a proprietary *E. coli.* 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 *E. coli* and purified by affinity chromatography

Source

E.coli

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(ADPr)TGGKAC
Specificity	**Anti mono-ADP-ribose antibody, clone AbD33205,** 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 AbD33205 is a mono-selective ADP-ribose antibody which was generated using an H3S10ADPr peptide as the antigen. This monovalent Fab format of ABD33205 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. It has the same specificity for mono-ADPr than the human/rabbit IgG chimera antibody HCA355, clone AbD33205 and recognizes Ser-mono-ADPr. Another mono-ADPr antibody (HCA354, clone AbD33204) also specifically recognizes mono-ADP-ribose, however it has a preference for mono-ADP-riboses other than Ser-mono-ADPr, with a preference for ubiquitin Arg-ADPr and mono-ADPr catalyzed by other PARPs.
References	1. Longarini, E.J. *et al.* (2023) Modular antibodies reveal DNA damage-induced mono-ADP-ribosylation as a second wave of PARP1 signaling. Mol Cell. 83 (10): 1743-1760.e11.
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.
Health And Safety Information	Material Safety Datasheet documentation #20479 available at: https://www.bio-rad-antibodies.com/SDS/TZA021 20479
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

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

'M428798:240301'

Printed on 21 May 2024