Datasheet: TZC042P

BATCH NUMBER 64697326

Description:	HUMAN IgG1-FcSPYCATCHER3:HRP
Name:	HUMAN IgG1-FcSPYCATCHER3
Format:	Catcher-HRP
Product Type:	Recombinant Protein
Quantity:	0.5 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
Immunoassay	▪			

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

Purified recombinant protein conjugated to Horseradish Peroxidase (HRP) - liquid

Preparation

Recombinant protein expressed in mammalian cell line and purified by affinity chromatography

Source

HKB-11

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.0095% MIT

Approx. Protein Concentrations

80 µM (6.2 mg/ml)

Product Information

Human IgG1-FcSpyCatcher3 (hIgG1-FcSpyC3) contains a SpyCatcher3 (Keeble *et al.* 2019) fused to the hinge region, CH2 and CH3 of human IgG1 (Hentrich *et al.* 2020), resulting in a 77.2 kDa protein for the disulfide-bridged dimer. Each SpyCatcher3 subunit

	can form a stable covalent isopeptide bond with a second protein that includes a SpyTag. The reaction occurs spontaneously on mixing, is rapid, irreversible, high-yielding and shows good specificity. The reaction is robust at pH 5 to 8, at temperatures from +4°C to +37°C, in various buffer conditions ($Ca2^+$/$Mg2^+$ not needed) and in the presence of detergents. The reaction also occurs inside cells (*in vivo*). Since the speed of the coupling reaction is concentration dependent, it is recommended to use hIgG1-FcCatcher3 undiluted. Human IgG1-FcSpyCatcher3 is compatible with Bio-Rad's recombinant HuCAL antibodies with a SpyTag2 at the C-terminus of the heavy chain. It is available purified or conjugated to biotin. Download FcSpyCatcher coupling protocol View all available Catchers
Protein Molecular Weight	Predicted molecular weight of the purified Catcher is 77166 Da The molecular weight specified excludes conjugation and will vary upon conjugation depending on the molecular weight of the label
Purity	≥90% determined by SDS-PAGE under reducing conditions and visualized by coomassie blue staining
Instructions For Use	View FcSpyCatcher Coupling Protocol
References	1. Keeble, A.H. *et al.* (2019) Approaching infinite affinity through engineering of peptide-protein interaction. Proc Natl Acad Sci U S A. 10: 116 (52): 26523-33. 2. Hentrich, C. *et al.* (2021) Periplasmic expression of SpyTagged antibody fragments enables rapid modular antibody assembly. Cell Chem Biol. 28 (6): 813-824.e6.
Storage	Store at -20°C only. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the protein. 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 #20480 available at: https://www.bio-rad-antibodies.com/SDS/TZC042P
Licensed Use	For *in vitro* research purposes. Any re-sale in any form or any other commercial application needs a written agreement with Bio-Rad.

Regulatory	For research purposes only

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

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Printed on 29 Jan 2026