

Datasheet: TZC009

BATCH NUMBER 167368

Description:	HUMAN IgG1-FcSpyCatcher3
Name:	HUMAN IgG1-FcSPYCATCHER3
Format:	Catcher
Product Type:	Recombinant Protein
Quantity:	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
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	FcSpyCatcher3 purified recombinant protein, fused to the hinge region, CH2, and CH3 of human IgG1 - 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 (hlgG1-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 hlgG1-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 ([TZC009](#)) or conjugated to biotin ([TZC009B](#)).

[Download FcSpyCatcher coupling protocol](#)

[View all available Catchers](#)

Protein Molecular Weight	Predicted 77166 Da
---------------------------------	--------------------

Purity	≥90% determined by SDS-PAGE under reducing conditions and visualized by coomassie blue staining
---------------	---

Instructions For Use	View FcSpyCatcher Coupling Protocol
-----------------------------	---

References	<ol style="list-style-type: none">1. Keeble, A.H. <i>et al.</i> (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. <i>et al.</i> (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/TZC009 20480
--------------------------------------	---

Licensed Use	For <i>in vitro</i> research purposes. Any re-sale in any form or any other commercial application needs a written agreement with Bio-Rad.
---------------------	--

Related Products

Recommended Useful Reagents

[HUMAN IgG1-FcSpyCatcher3:Biotin \(TZC009B\)](#)

[SpyTag3 PEPTIDE \(BLP086\)](#)

North & South Tel: +1 800 265 7376

America 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

'M417181:230302'

Printed on 19 Jan 2024
