

## Datasheet: TZC019

<b>Description:</b>	HUMAN IgG4-Pro-FcSpyCatcher3
<b>Name:</b>	HUMAN IgG4-Pro-FcSPYCATCHER3
<b>Format:</b>	Catcher
<b>Product Type:</b>	Recombinant Protein
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Protein/peptide tag
<b>Product Form</b>	Purified recombinant protein - Liquid
<b>Preparation</b>	Recombinant protein expressed in mammalian cell line and purified by affinity chromatography
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.1% ProClin 950
<b>Approx. Protein Concentrations</b>	80 µM (6.1 mg/ml)

**Product Information** **Human IgG4-Pro-FcSpyCatcher3** (hIgG4-Pro-FcSpyC3) contains a SpyCatcher3 ([Keeble \*et al.\* 2019](#)) fused to the hinge region, CH2 and CH3 of human IgG4-Pro ([Hentrich \*et al.\* 2020](#)), resulting in a 76.5 kDa protein for the disulfide-bridged dimer. The IgG4-Pro sequence has a mutation S228P in the core hinge region that prevents the formation of IgG4 half molecules. 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 (Ca<sup>2+</sup>/Mg<sup>2+</sup> 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 hIgG4-Pro-FcCatcher3 undiluted.

Human IgG4-Pro-FcSpyCatcher3 is compatible with Bio-Rad's recombinant HuCAL® antibodies with a SpyTag2 at the C-terminus of the heavy chain.

[Download FcSpyCatcher coupling protocol](#)

[View all available Catchers](#)

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<b>Protein Molecular Weight</b>	Predicted 76514 Da
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<b>Purity</b>	≥90% determined by SDS-PAGE under reducing conditions and visualized by coomassie blue staining
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<b>Instructions For Use</b>	<a href="#">View FcSpyCatcher Coupling Protocol</a>
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<b>Storage</b>	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.
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<b>Guarantee</b>	12 months from date of despatch
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<b>Acknowledgements</b>	ProClin is a trademark of The Dow Chemical Company (“Dow”) or an affiliated company of Dow 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 <a href="http://bio-rad.com/en-us/trademarks">bio-rad.com/en-us/trademarks</a> for details.
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20480 available at: 20480: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/20480.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/20480.pdf</a>
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<b>Licensed Use</b>	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.
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Useful Reagents

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

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**Worldwide**

Tel: +44 (0)1865 852 700

**Europe**

Tel: +49 (0) 89 8090 95 21

To

**America** Fax: +1 919 878 3751

Fax: +44 (0)1865 852 739

Fax: +49 (0) 89 8090 95 50

find a

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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

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