

## Datasheet: TZC036

<b>Description:</b>	HUMAN IgM-FcSpyCatcher3
<b>Name:</b>	HUMAN IgM-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>	FcSpyCatcher3 purified recombinant protein, fused to the hinge region, CH2, and CH3 of human IgM - liquid
<b>Preparation</b>	Recombinant protein expressed in mammalian cell line and purified by affinity chromatography
<b>Source</b>	CHO-S
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.0095% MIT
<b>Approx. Protein Concentrations</b>	40 $\mu$ M (4.1 mg/ml)

**Product Information** **Human IgM-FcSpyCatcher3 (hIgM-FcSpyC3)** contains a SpyCatcher3 ([Keeble et al. 2019](#)) fused to the hinge region, CH2 and CH3 domains of human IgM, resulting in a 102.4 kDa protein for each disulfide-bridge IgM monomer. Analysis of the

hIgM-FcSpyCatcher3 (TZC036) shows that it spontaneously forms pentameric and hexameric IgMs and that it does not contain any J chain.

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 hIgM-FcCatcher3 undiluted.

Human IgM-FcSpyCatcher3 has been successfully tested in ELISA, Western-Blotting and precipitation assays and is compatible with Bio-Rad's recombinant HuCAL antibodies with a SpyTag2 at the C-terminus of the heavy chain.

[Download hIgM-FcSpyCatcher3 coupling protocol](#)

[View all available Catchers](#)

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<b>Protein Molecular Weight</b>	Predicted molecular weight of the pentameric form 512 kDa
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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>	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: <a href="https://www.bio-rad-antibodies.com/SDS/TZC036">https://www.bio-rad-antibodies.com/SDS/TZC036</a> 20480
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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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