

Datasheet: TZC026

BATCH NUMBER 165220

Description:	HUMAN IgG1-N297Q-FcSpyCatcher3
Name:	HUMAN IgG1-N297Q-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	HKB11
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.0095% MIT
Approx. Protein Concentrations	80 µM (6.2 mg/ml)
Product Information	Human IgG1-N297Q-FcSpyCatcher3 (hIgG1-N297Q-FcSpyCatcher3) 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. It incorporates a N297Q mutation within its Fc region (mutation of the asparagine residue at position 297 into a glutamine) which can prevent binding to FcR1.

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-N297Q-FcCatcher3 undiluted.

Human IgG1-N297Q-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](#)

Protein Molecular Weight	Predicted 77212 Da
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Purity	≥90% determined by SDS-PAGE under reducing conditions and visualized by coomassie blue staining
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Instructions For Use	View FcSpyCatcher Coupling Protocol
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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.
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Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #20480 available at: https://www.bio-rad-antibodies.com/SDS/TZC026 20480
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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.
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Regulatory	For research purposes only
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Related Products

Recommended Useful Reagents

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

[RECOMBINANT HUMAN IgG1 N297Q KAPPA ALLOTYPIC G1m3 \(HCA394\)](#)

[HUMAN IgG1-FcSpyCatcher3 \(TZC009\)](#)

[HUMAN IgG1-LALA-FcSpyCatcher3 \(TZC027\)](#)

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

'M421765:230725'

Printed on 19 Jan 2024

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