

Datasheet: TZC001CYS

BATCH NUMBER 156813

Description:	SpyCatcher2-CYS
Name:	SPYCATCHER2
Format:	Catcher-CYS
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	SpyCatcher2 purified recombinant protein, with an engineered cysteine residue; use for site-specific chemical conjugation to a label of choice - liquid
Preparation	Recombinant protein expressed in <i>E. coli</i> and purified by affinity chromatography
Buffer Solution	Phosphate buffered saline
Preservative	0.1% ProClin 950
Stabilisers	5 mM EDTA
Approx. Protein Concentrations	440 µM (7 mg/ml)

Product Information **SpyCatcher2** (H-SpyC2) is a 15.7 kDa protein that forms 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. SpyCatcher2 contains a His6-tag at the N-terminus. To avoid deamidation of asparagine, a N105D mutation was introduced ([Hentrich et al. 2020](#)).

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 SpyCatcher2 undiluted.

All the different formats of SpyCatcher2 are compatible with Bio-Rad's recombinant HuCAL® antibodies with a SpyTag2 at the C-terminus of the heavy chain.

[Download SpyCatcher coupling protocol](#)

SpyCatcher2 (TZC001) is available as a modified version, SpyCatcher2-CYS (TZC001CYS), which contains a cysteine residue for site-specific conjugation by the user.

[View all available Catchers](#)

Protein Molecular Weight	Predicted 15904 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 SpyCatcher 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 #20484 available at: https://www.bio-rad-antibodies.com/SDS/TZC001CYS 20484
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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

[SpyCatcher2 \(TZC001\)](#)

[SpyCatcher2:Biotin \(TZC001B\)](#)

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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

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