

Datasheet: 12020038

Description:	TrailBlazer Tag Kit 0.1 mg
Name:	TrailBlazer Tag Kit
Format:	Kit
Product Type:	Conjugation Kit
Quantity:	1 X 100 µg Antibody Conjugation

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
Conjugation	▪			

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.

Product Information

TrailBlazer™ Tag is the first part of a two-kit antibody labeling system. Together with the [StarBright™ Dye Label Kits](#) they will allow you to conjugate an antibody to superior StarBright Dyes using the innovative [SpyTag and SpyCatcher technology](#). They provide the benefits of using StarBright Dyes in flow cytometry and western blots for your antibody of choice.

First, the SpyTag is attached to an antibody using the TrailBlazer Tag Kit. This antibody, now with a SpyTag, is mixed then with a StarBright Dye labeled SpyCatcher using the Label Kit. A spontaneous reaction occurs between the SpyTag and SpyCatcher resulting in an irreversible covalent isopeptide bond. The result is a highly stable StarBright Dye labeled antibody.

Batch specific [Certificate of Analysis](#) for TrailBlazer Tag Kits are available to be downloaded directly from the website.

The TrailBlazer Tag kit is compatible with a wide range of antibody host species, concentrations, isotypes and buffers. [Find out if your antibody is compatible](#).

Once an antibody is attached to a SpyTag, it needs to be labeled using the TrailBlazer StarBright Dye Label Kit within two weeks. The tagged antibody should be stored at +4°C; when stored correctly it will be stable for two weeks.

The TrailBlazer Tag Kits are available in two different packs sizes and the TrailBlazer StarBright Dye Label Kits have corresponding pack sizes and a range of StarBright Dyes. Discover the [full range](#) and all the [benefits of these TrailBlazer Tag and StarBright Dye Label Kits](#).

Reagents In The Kit 1 X 100 µg Antibody Conjugation ([3 X 100 µg Antibody Conjugation Kit available](#))

1 vial Conjugation Buffer
1 vial Reagent A
1 vial Tag
2x Desalting Columns
1 filter

Instructions For Use

Antibody preparation

Add 100 µg of antibody to the filter and place into the collection tube.

Add the amount of Conjugation Buffer required to reach 500 µl total volume. Cap and invert to mix.

Centrifuge at 5000 x g until the volume reaches ~50 µl (approximately 5 min). Discard the eluate in the collection tube.

Repeat steps 1.2 - 1.3 two additional times.

Ensure that the volume of the antibody is ~50 µl and no more than 100 µl. If required perform further centrifugations. Invert the filter and place into the empty collection tube.

Centrifuge the tube with the inverted filter for 30 sec at 5000 x g. Retain the eluate that contains the antibody.

Antibody modification

Prepare Reagent A by adding 75 µl of Conjugation Buffer.

Add 2 µl of prepared Reagent A to the antibody solution, briefly vortex to mix.

Incubate at room temperature for 60 min.

During the incubation prepare a desalting column.

Snap open the bottom of the column and insert the column into a 2 ml collection tube.

Remove and discard the column cap and centrifuge for 2 min at 1000 x g. Discard eluate.

Apply 500 µl of Conjugation Buffer and centrifuge for 1 min at 1000 x g. Discard eluate.

Repeat step 2.4.2 for two additional times. Add Conjugation Buffer for the third wash but wait to centrifuge until immediately prior to proceeding to step 2.5. After the third wash check there is no solution in the column, if required briefly centrifuge until no solution remains.

Insert prepared desalting column into a fresh 1.5 ml microcentrifuge tube and apply the entire sample from step 2.3 to the column.

Centrifuge at 1000 x g for 4 min and retain eluate.

Attachment of SpyTag to the antibody

Prepare Tag by adding 5 µl of ultrapure water and vortex briefly.

Add 2 µl of prepared Tag to the prepared antibody, vortex briefly and pulse spin.

Incubate at room temperature for 30 min – 3 hours.

During the incubation prepare a second desalting column, following steps 2.4.1 – 2.4.3.

Insert prepared desalting column into a fresh 1.5 ml microcentrifuge tube and add the entire sample from step 3.3 to the column.

Centrifuge at 1000 x g for 4 min and retain eluate that contains the modified antibody.

This completes the TrailBlazer Tag Kit Protocol. Proceed to using the TrailBlazer Label Kit or store the SpyTagged antibody at +4°C for up to 2 weeks.

For full instructions for use please go to: [bio-rad-antibodies.com/tag-kit-IFU](https://www.bio-rad-antibodies.com/tag-kit-IFU).

Storage	Store at +4°C. DO NOT FREEZE. The tagged antibody should be stored at +4°C; when stored correctly it will be stable for two weeks.
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 #12020038 available at: https://www.bio-rad-antibodies.com/SDS/12020038 12020038
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

- [TrailBlazer Tag Kit 3 x 0.1 mg \(12020901\)](#)
- [TrailBlazer SBB700 Label Kit \(12020040\)](#)
- [TrailBlazer SBV515 Label Kit \(12020041\)](#)
- [TrailBlazer SBV440 Label Kit \(12020042\)](#)
- [TrailBlazer SBV610 Label Kit \(12020043\)](#)
- [TrailBlazer SBV670 Label Kit \(12020044\)](#)
- [TrailBlazer SBV570 Label Kit \(12020045\)](#)

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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](https://www.bio-rad-antibodies.com/datasheets)
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Printed on 14 Jan 2025