

Agilent Phycobiliprotein Conjugates

For bead-based, tetramer and flow cytometry applications



Agilent makes a series of streptavidin-RPE and streptavidin-APC conjugates to meet the special requirements of customer applications. As Agilent manufactures both the streptavidin and phycobiliprotein components of the conjugates, as well as the conjugates themselves, we are able to better control the elements of Quality and manufacturing.

Identify the optimal conjugate for your application

Using our highly purified [phycobiliproteins](#) and [streptavidins](#), we manufacture a variety of Streptavidin R-Phycoerythrin and Allophycocyanin conjugates for bead-based, flow cytometry, tetramer and FRET applications. We also offer kits and SMCC-activated phycobiliproteins for simplified conjugation of your antibody of interest.

Our products include:

- A range of [Streptavidin R-Phycoerythrin conjugates](#), including a [sampler kit](#) to test in your application(s)
- [Streptavidin-Allophycocyanin](#) conjugates for tetramer, multimer and FRET applications
- An [R-Phycoerythrin conjugation kit](#) which contains everything you need to conjugate up to 1 mg of your antibody to RPE
- [SMCC-activated R-Phycoerythrin and Allophycocyanin](#) to easily conjugate to antibodies and other proteins of interest

Please visit the [Agilent website](#), and [contact us](#) for more information.

Phycobiliprotein Conjugates

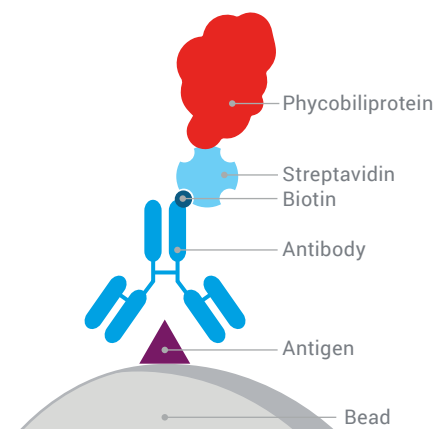
[Streptavidin-R-Phycoerythrin](#)

Multiple variations of this conjugate offered:

- 'Small' conjugates used for flow cytometry or tetramer assays (T-cell analysis)
- 'Large' conjugates used for bead-based assays

[Streptavidin-Allophycocyanin \(SA-APC\)](#)

Main application is tetramer assay (T-cell analysis by flow cytometry)



Example of an flow cytometry setup including streptavidin-phycobiliprotein conjugate

Streptavidin-RPE conjugates

R-Phycoerythrin (RPE) conjugates are used in flow cytometry, immunoassays, MHC tetramer assays and bead-based assays. RPE is a highly absorptive fluorescent molecule that has excellent detectability. It is the fluorochrome of choice when the brightest signal is needed and is therefore used most often when high sensitivity is essential for detectability and/or accuracy. Using our streptavidin and highly purified RPE we manufacture a variety of conjugates for different applications. These have different properties that make them especially suitable for one application or another (for instance, the optimal conjugates for bead-based assays are not usually the same as the optimal conjugates for MHC tetramer assays).

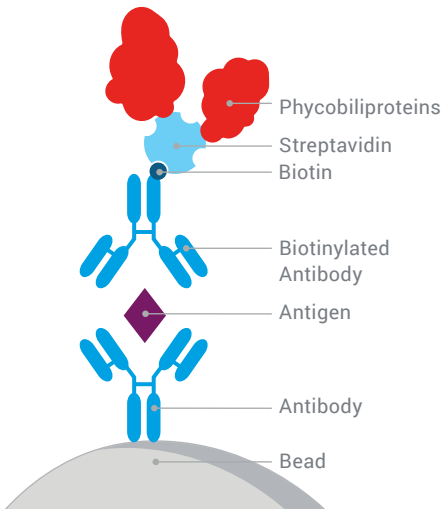
Streptavidin-RPE conjugate selection guide

We have a range of Streptavidin-R-Phycoerythrin (SA-RPE) conjugates that differ in overall size. We recommend that you test our conjugates to find out which is the best for your system.

The easiest way to get started is with our [PJ3SX Streptavidin-RPE Sampler kit](#), which contains all of the conjugates listed in the selection guide below.

Part Number	Conjugate Size	Application
PJRS301*; PJRS20; PJRS34	Large	Luminex and other bead-based assays
PJRS25**; PJRS27	Medium	Tetramer
PJ39S	Small	Flow cytometry

* PJRS301 is our newest conjugate, developed for long-term signal consistency.
** PJRS25 is used in the NIH (Emory) Tetramer Core Facility protocol¹, along with our streptavidin-APC conjugate PJ27S.



Example of an immunoassay setup including streptavidin-phycoerythrin conjugate

Streptavidin-RPE conjugate sampler kit

Agilent makes a series of Streptavidin-R-Phycoerythrin conjugates to meet the special requirements of customer applications. Try our PJ3SX Sampler kit, and test a variety of conjugates. Share the results for your application, and we will apply the price paid for the kit against your first 1 mg purchase of any one of the component conjugates.

Product Description	Part Number	Pack size
Streptavidin-Phycoerythrin, sampler kit	PJ3SX	1 ea PJRS20 (0.25 mg), 1 ea PJRS25 (0.25 mg), 1 ea PJRS27 (0.25 mg), 1 ea PJRS301 (0.25 mg), 1 ea PJ39S (0.25 mg), 1 ea PJRS34 (0.25 mg)



¹ NIH Tetramer Core Facility. [Internet]. Atlanta, GA: Emory University; c2006-2010. Class I MHC Tetramer Preparation: Overview; [cited 2020 Oct 21]. Available from: <http://tetramer.yerkes.emory.edu/support/protocols>

What is meant by “conjugate size”?

Our SA-RPE conjugates differ in overall average size, due to differences in the way the conjugation is performed. For example, our PJ39S SA-RPE is likely monomeric (approx. 2–3 SA molecules conjugated to a single RPE molecule), the other conjugates are larger structures containing more than 1 RPE molecule. We include the molar concentrations of streptavidin and RPE on the Certificates of Analysis.

Streptavidin-RPE conjugates

Product Description	Part Number	Pack Size	Application	Conjugate Size
Streptavidin-R-Phycoerythrin	PJ31S-1	1 mg	PJ31S is a conjugate specifically manufactured for optimum performance in bead-based assays such as the Luminex platform. Superseded by newer conjugates PJRS20 and PJRS301.	Large
	PJ31S-5	5 mg		
	PJ31S	50 mg		
Streptavidin-R-Phycoerythrin (ver 2)	PJ39S-1	1 mg	A conjugate that is predominantly a single peak on an HPLC/SEC chromatogram, consistent with approximately two streptavidin molecules conjugated to a single R-phycoerythrin molecule. Potential applications include single molecule detection systems and quantitative analysis in flow cytometry.	Small
	PJ39S	50 mg		
Streptavidin-R-Phycoerythrin (ver 4)	PJRS20-1	1 mg	PJRS20 is manufactured for optimum performance in bead-based assays.	Large
	PJRS20-10	10 mg		
	PJRS20	50 mg		
Streptavidin-R-Phycoerythrin (ver 5)	PJRS25-1	1 mg	PJRS25 is one of several unique Streptavidin-RPE conjugates that has shown to improve performance of some bead-based assays such as the Luminex platform.	Med
	PJRS25-10	10 mg		
	PJRS25	50 mg		
Streptavidin-R-Phycoerythrin (ver 6)	PJRS27-1	1 mg	PJRS27 is manufactured for optimum performance in tetramer and multimer applications ¹ as well as flow cytometry and bead-based assays such as the Luminex platform.	Med
	PJRS27-10	10 mg		
	PJRS27	50 mg		
Streptavidin-R-Phycoerythrin (ver 7)	PJRS301-1	1 mg	PJRS301 is our newest streptavidin-RPE conjugate and is specifically manufactured for optimum performance in bead-based assays. PJRS301 manufacture includes additional steps designed to ensure consistent lot performance over time.	Large
	PJRS301-10	10 mg		
	PJRS-301	50 mg		
Streptavidin-R-Phycoerythrin (ver 9)	PJRS34-1	1 mg	PJRS34 is manufactured as a low background conjugate for research applications utilizing bead-based assays.	Large
	PJRS34-10	10 mg		
	PJRS34	50 mg		

¹ NIH Tetramer Core Facility. [Internet]. Atlanta, GA: Emory University; c2006-2010. Class I MHC Tetramer Preparation: Overview; [cited 2020 Oct 21]. Available from: <http://tetramer.yerkes.emory.edu/support/protocols>

Streptavidin-APC conjugates

Allophycocyanin (APC) conjugates are used in FRET screening, flow cytometry, immunoassays and MHC tetramer assays. APC is a highly absorptive fluorescent molecule that has excellent detectability. APC is usually used in an internally crosslinked form which is stable at the low concentrations required for most uses. Conventional conjugation techniques will not alter the spectral characteristics of this product. Using our highly purified crosslinked APC, we manufacture a variety of [APC conjugates](#) for different applications. We also offer SMCC-activated APC for simplified conjugation to antibodies and other sulfhydryl-containing proteins of interest.

Product Description	Part Number	Pack Size	Application
Streptavidin-Allophycocyanin	PJ25S	0.25 mg	PJ25S is a larger conjugate than PJ27S, and is better suited for FRET assays.
	PJ25S-1	1 mg	
	PJ25S-10	10 mg	
Streptavidin-Allophycocyanin (ver 2)	PJ27S	0.25 mg	PJ27S is specifically designed for use in tetramer and multimer applications ¹ .
	PJ27S-1	1 mg	

¹. NIH Tetramer Core Facility. [Internet]. Atlanta, GA: Emory University; c2006-2010. Class I MHC Tetramer Preparation: Overview; [cited 2020 Oct 21]. Available from: <http://tetramer.yerkes.emory.edu/support/protocols>

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Quality	Bioanalytical proteins with proven performance, high purity, and reproducibility achieved through robust manufacturing processes.
Expertise	Access to 30 years experience in the development and manufacturing of high-performance, consistent streptavidin and phycobiliprotein products

Learn more:

www.agilent.com/chem/proteins-conjugates

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© Agilent Technologies, Inc. 2021
Published in the USA, October 1, 2021
5994-4054EN