

Maleimide-Activated Streptavidin

Applicable to: 405-0002 2mg
405-0005 5mg

Release 2. © EXPEDION. 18/12/2018

INTRODUCTION

Maleimide-activated Streptavidin is designed to facilitate the conjugation of streptavidin to proteins, peptides and ligands that contain sulfhydryl (-SH) groups. The reactive maleimide group that has been added to streptavidin allows conjugation to be performed very efficiently at physiological pH.

STORAGE AND SHIPPING

Maleimide-activated streptavidin is shipped at ambient temperature as a lyophilized powder and should be stored upon receipt at -20°C. Shelf life is 3 years.

TECHNICAL NOTES

The buffer in which the thiolated molecule is dissolved should be in the pH range 6.5-7.5. Phosphate buffered saline pH 7.2 is commonly employed. EDTA (1-10 mM) may help to prevent metal catalyzed oxidation of thiols.

Please see the below table for recommended buffer conditions and components:

Buffer components	
pH range 6.5-7.5	✓
Chelating agents (e.g. EDTA)	✓
Primary amines	✓
Reducing reagents	✗
Sodium Azide	< 0.1%

Molecules that do not contain -SH groups can be chemically modified to introduce the required thiol functionality.

Expedeon offers a thiolation kit (Prod. Code: 419-0005) compatible with this product.

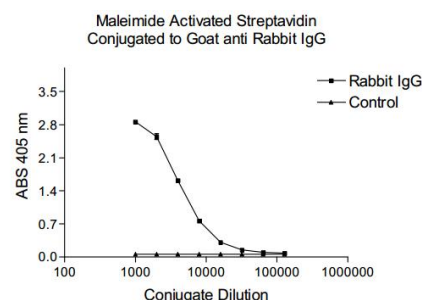
In the case of antibodies, disulfide (S-S) bridges may also be cleaved to release free thiols. Any reducing reagent (e. g. dithiothreitol and β-mercaptoethanol) used to produce free thiols should be removed before proceeding with the conjugation.

Further technical information about chemical modification strategies is available on our website.

PROTOCOL

1. Allow the vial of maleimide-activated streptavidin to warm to room temperature.
2. Remove the crimp seal and reconstitute the lyophilized powder by adding a buffered solution of the thiol-containing molecule. Gently agitate the vial to ensure thorough dissolution.
3. Incubate for 3-4 hours (or overnight) at room temperature and then store at 4°C.

EXAMPLE DATA



Thiolated goat anti-rabbit IgG was incubated with maleimide-activated Streptavidin. The resulting conjugate was analyzed by ELISA using a rabbit IgG coated ELISA plate, biotinylated HRP secondary and the HRP substrate 2-2-Azino-bis (3-ethylbenzothiazoline-6-sulfonic acid) (ABTS).

RELATED PRODUCTS

Description	Prod. Code
Maleimide Alkaline Phosphatase	402-0005
Maleimide HRP	401-0005
Maleimide R-Phycoerythrin	403-0005
Maleimide APC	404-0002
Maleimide BSA	408-0005
Maleimide KLH	409-0005
Thiolation kit	419-0005
Thiol quantification kit	418-0002

TECHNICAL SUPPORT

For technical enquiries get in touch with our technical support team at: technical.enquiries@expedion.com

For further information see our website: www.expedion.com

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