



Maleimide-Activated BSA

Applicable to:

408-0002 2 mg lyophilized maleimide-activated BSA

408-0005 5 mg lyophilized maleimide-activated BSA

Release 4

29/06/2016

Introduction

Maleimide-activated BSA is designed to facilitate the conjugation of Bovine Serum Albumin (BSA) to proteins, peptides and ligands that contain sulfhydryl (-SH) groups. BSA stimulates a large immune response and is typically used as a carrier protein to generate antibodies against small antigens (peptides or organic compounds). For success the antigen (normally referred to as a hapten) needs to be covalently linked to the carrier protein. The added maleimide groups allow conjugation to be performed very efficiently at physiological pH.

Storage and shipping

Maleimide-activated BSA 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 catalysed 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. Innova 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.

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Protocol

1. Allow the vial of maleimide-activated BSA 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.

Related products

Description	Prod. Code
Maleimide Alkaline Phosphatase	402-0005
Maleimide HRP	401-0005
Maleimide Streptavidin	405-0005
Maleimide R-Phycoerythrin	403-0005
Maleimide Ovalbumin	407-0005
Maleimide APC	404-0002
Maleimide KLH	409-0005
Thiolation kit	419-0005
Thiol quantification kit	418-0002

For further information about our products please see our website: www.innovabiosciences.com.

For technical support please contact us: www.innovabiosciences.com/contact-us.html