



Apramycin [BSA] (DAG4463)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Apramycin, BSA-conjugate
Antigen Description	The apramycin sulfate and BSA (bovine serum albumin) (10 mg each) are conjugated by EDC method in 0.1 M MES pH 5.0. One or more of the four amine groups in the apramycin are directly linked to carboxyl group(s) in the BSA without any linker by EDC conjugation method. Given the molecular weights of apramycin sulfate and BSA are 637.66 Da and 66.4 kDa, respectively, the molar ratio of apramycin:BSA in the conjugation solution is 104:1. The resultant conjugation solution is then buffer-exchanged with 20 mM PBS, pH 7.4. The number of apramycin that is actually conjugated to each BSA molecule is not determined.
Species	N/A
Conjugate	BSA
Applications	Used as capture antigen for the detection of anti-apramycin antibodies and as immunogen for the generation of apramycin antibodies.
Format	Liquid
Concentration	2.0 mg/mL BSA
Size	1 mg
Buffer	Supplied in 20 mM PBS, pH 7.4
Preservative	None
Storage	Keep below -20°C for up to 1 year. Avoid repeated freeze-and-thaw. For short term storage (< 3 weeks) keep at 4°C.

BACKGROUND

Introduction

Aminoglycosides are a family of bactericidal antibiotics that are used in the treatment of specific bacterial infections. They display a concentration dependent killing action and are active against a wide range of aerobic Gram-negative bacilli. Aminoglycosides are molecules that are comprised of an amino group and a sugar group. They operate by inhibiting the bacteria from producing proteins vital to its growth. More specifically, they bind to the bacterial 30S ribosomal subunit where they prevent the translocation of the peptidyl-tRNA from the A-site to the P-site, subsequently giving rise to a misreading of mRNA resulting in the inhibition of protein synthesis. This consequently results in a disruption to the integrity of the bacterial cell membrane. In addition to their use to prevent bacterial infection, aminoglycosides have been used as growth promoters in food producing animals.

Keywords

Apramycin