

Bacitracin, BSA-conjugate

DAG4464 chemosynthetic

Lot. No. (See product label)

PRODUCT INFORMATION

Product overview	Bacitracin, BSA-conjugate
Description	The bacitracin zinc salt 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 three amine groups in the bacitracin are directly linked to carboxyl group(s) in the BSA without any linker by EDC co
Species	chemosynthetic
Conjugate	BSA
Applications	The bacitracin, BSA-conjugate has been shown to be recognized by bacitracin-specific antibodies by ELISA and lateral flow based immunoassay, respectively.
Usage	Used as capture antigen for the detection of anti-bacitracin antibodies and as immunogen for the generation of bacitracin antibodies
Notes	for research use only

PACKAGING

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.
Concentration	2.0 mg/ml
Buffer	BSA(in 20 mM PBS, pH 7.4)

BACKGROUND

Introduction	Bacitracin is a mixture of related cyclic polypeptides produced by organisms of the licheniformis group of <i>Bacillus subtilis</i> var Tracy, isolation of which was first reported in 1945. As a toxic and difficult-to-use antibiotic, bacitracin does not work well orally. However, it is very effective topically, and is a common ingredient of eye and skin antibiotic preparations. Its action is on Gram-positive cell walls. It can cause contact dermatitis and cross-reacts with allergic sensitivity to sulfa-drugs. When given intramuscularly, bacitracin's absorption is rapid and complete, but its nephrotoxicity (kidney damage potential) has limited its use to infants only, and then in very specific circumstances. In 2010 it was approved by the US FDA by this route for the very narrow indication of treatment of infants with staphylococcal pneumonia and empyema when due to organisms shown to be susceptible to bacitracin. It can only be used where adequate laboratory facilities are available for checking the drug's concentration in blood.
Keywords	ayfivin; baciguent; baciliquin; bacitekointment; mycitracinpluspainreliever; penitracin; Ginebatin; Bacitracin

REFERENCES

1. Johnson B, Anker H, Meleney F (1945). "Bacitracin: a new antibiotic produced by a member of the *B. subtilis* group". *Science* 102 (2650): 376–377.