

Apramycin, BSA-conjugate

DAG4463 chemosynthetic

Lot. No. (See product label)

PRODUCT INFORMATION

Product overview	Apramycin, BSA-conjugate
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.
Species	chemosynthetic
Conjugate	BSA
Applications	The apramycin, BSA-conjugate has been shown to be recognized by apramycin-specific antibodies by ELISA and lateral flow based immunoassay, respectively.
Usage	Used as capture antigen for the detection of anti-apramycin antibodies and as immunogen for the generation of apramycin 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	Apramycin stands out among aminoglycosides for its mechanism of action which is based on blocking translocation and its ability to bind also to the eukaryotic decoding site despite differences in key residues required for apramycin recognition by the bacterial target. The drug binds in the deep groove of the RNA which forms a continuously stacked helix comprising non-canonical C.A and G.A base pairs and a bulged-out adenine. The binding mode of apramycin at the human decoding-site RNA is distinct from aminoglycoside recognition of the bacterial target, suggesting a molecular basis for the actions of apramycin in eukaryotes and bacteria.
Keywords	Apramycin; Nebramycin II; 3,7-trideoxy-7-(methylamino)-D-glycero-α-D-allo-octadialdo-1,5:8,4-dipyr; apralan; nebramycin factor 2; 4-O-((8R)-2-Amino-8-O-(4-amino-4-deoxy-α-D-glucopyranosyl)-2,3,7-trideoxy-7-(methylamino)-D-glycero-α-D-allo-octod

REFERENCES

1. Ryden, R; Moore (1977). "BJ". J Antimicrob Chemother 3 (6): 609–613. doi:10.1093/jac/3.6.609. PMID 340441.