Anti-Neomycin Antibody [Huam011] - BSA and Azide free

HA721133

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Species independent
Applications:	ELISA
Clone number:	Huam011

Description: Neomycin is an aminoglycoside antibiotic that displays bactericidal activity against gram-negative aerobic bacilli and some anaerobic bacilli where resistance has not yet arisen. Neomycin comes in oral and topical formulations, including creams, ointments, and eyedrops. Neomycin belongs to the aminoglycoside class of antibiotics that contain two or more amino sugars connected by glycosidic bonds. Aminoglycosides such as neomycin are known for their ability to bind to duplex RNA with high affinity. The association constant for neomycin with A-site RNA is in the 109 M−1 range. However, more than 50 years after its discovery, its DNA-binding properties were still unknown. Neomycin has been shown to induce thermal stabilization of triplex DNA, while having little or almost no effect on the B-DNA duplex stabilization. Neomycin was also shown to bind to structures that adopt an A-form structure, triplex DNA being one of them. Neomycin also includes DNA:RNA hybrid triplex formation. Like other aminoglycosides, neomycin has been shown to be ototoxic, causing tinnitus, hearing loss, and vestibular problems in a small number of patients. Patients with existing tinnitus or sensorineural hearing loss are advised to speak with a healthcare practitioner about the risks and side effects prior to taking this medication.

Immunogen: Neomycin-OVA

Positive control: Neomycin-BSA

Recommended Dilutions:

ELISA	1:10,000

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

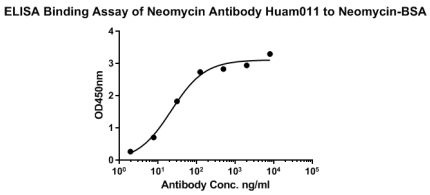

Fig1: Indirect ELISA analysis of Neomycin was performed by coating wells of a 96-well plate with 50 µl per well of Neomycin-BSA diluted in carbonate/bicarbonate buffer, at a concentration of 1 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 1%BSA blocking buffer, and incubated with 100 µl per well of Neomycin monoclonal antibody starting at a concentration of 20 µg/mL and serially diluting it to a concentration of 1.28 ng/mL for 1 hours at room temperature. The plate was washed and incubated with 50 µl per well of an HRP-conjugated goat anti-Rabbit IgG secondary antibody at a dilution of 1:15,000 for one hour at room temperature. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

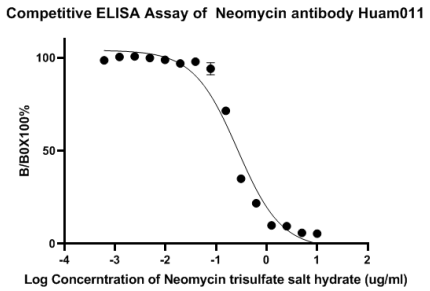

Fig2: Competitive ELISA analysis of Neomycin was performed by coating wells of a 96-well plate with 50 µl per well of Neomycin-BSA diluted in carbonate/bicarbonate buffer, at a concentration of 0.1 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 1%BSA blocking buffer, and incubated with 100 µl per well of Neomycin monoclonal antibody at concentration of 0.5 µg/mL with serial diluted Neomycin trisulfate salt hydrate starting from a concentration of 10ug/ml for 1 hours at room temperature. The plate was washed and incubated with 50 µl per well of an HRP-conjugated goat anti-Rabbit IgG secondary antibody at a dilution of 1:15,000 for one hour at room temperature. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.