

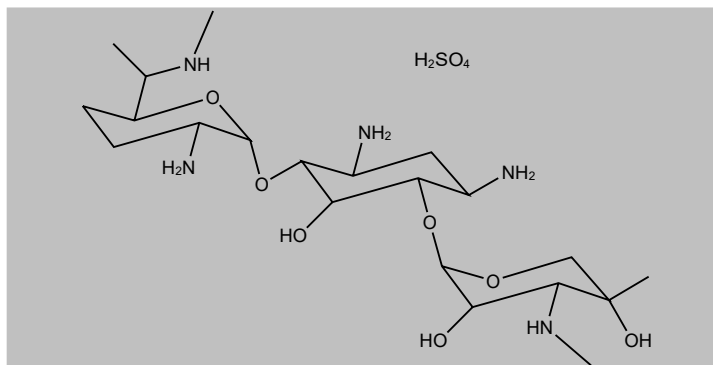
## Certificate Of Analysis Quality Control Testing and Research Application

COA Preparation Date: 19/09/2013  
COA Revision Date: 19/09/2016

**Product:** Gentamicin sulfate  
**Cat. No.:** NB-48-0447  
**Batch No.:** 0206BG/01  
**Chemical Name:** O-3-Deoxy-4-C-methyl-3-(methylamino)- $\beta$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)-O-(2,6-diamino-2,3,4,6-tetrahydroxy- $\alpha$ -D-erythro-hexopyranosyl-(1 $\rightarrow$ 4))-2-deoxy-D-streptamine (Chemical name for gentamicin C<sub>1A</sub>); Gentamicin C complex sulfate; Gentamicin sulfate

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>21</sub>H<sub>45</sub>N<sub>5</sub>O<sub>11</sub>S (Gentamicin C<sub>1A</sub>)  
**Batch Molecular Weight:** 575.67 (Gentamicin C<sub>1A</sub>)  
**CAS No.:** [1405-41-0]  
**Physical Appearance:** White or almost white powder  
**Melting Point:** 218 - 237° C  
**Solubility:** Soluble to 100 mg/ml in water  
**Storage:** RT  
**Batch Molecular Structure:**



**Product Description:** A broad spectrum Aminoglycoside antibiotic. Aminoglycosides work by binding to the bacterial 30S ribosomal subunit, causing misreading of t-RNA, leaving the bacterium unable to synthesize proteins vital to its growth. Aminoglycosides are useful primarily in infections involving aerobic, gram-negative bacteria, such as Pseudomonas, Acinetobacter and Enterobacter.

**References:** 1. Hamilton (2001) Lancet 358:2014; 2. Luft (2002) J Mol Med 80:543

- CAUTION - Not fully tested. For Research use only. Not for human use. -

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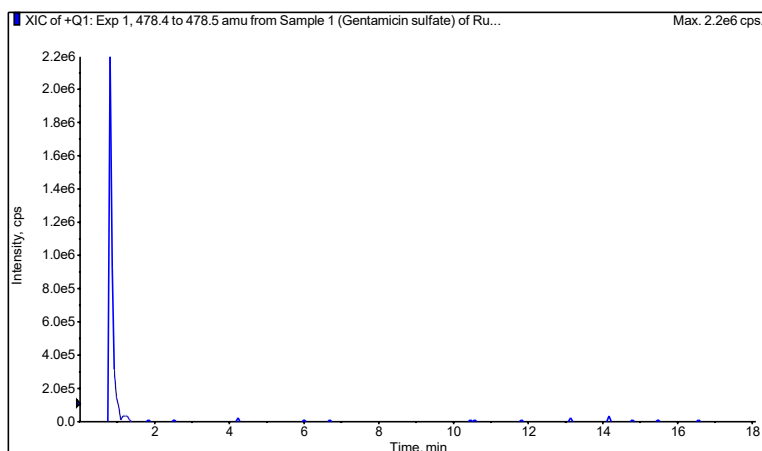
**NB-48-0447 Gentamicin sulfate**

### 2. ANALYTICAL DATA

HPLC: corresponds to the reference

MS: corresponds to the reference

Tests: pH: 5.3 (complies); Specific optical rotation: +117.0° (complies); Water: 7.1% (complies); Loss on drying: 0.09% (complies); Sulphate: 32.2 (complies); Sulphated ash: 0.3% (complies); Heavy Metals: < 20 ppm (complies); Anhydrous potency: 663 U/mg (complies)



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