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| Product Name: | Gentamicin C2b sulfate, EvoPure® |
| Product Number: | G062 |
| CAS Number: | 66803-19-8 |
| Molecular Formula: | $C_{20}H_{41}N_5O_7 \cdot xH_2SO_4$ (lot specific) |
| Molecular Weight: | 463.6 g/mol (Free base) |
| Appearance: | White or off-white powder |
| Source: | <i>Micromonospora</i> spp. |
| Storage Conditions: | -20°C |
| Description: | Gentamicin C2b sulfate, EvoPure® is one of several components in the Gentamicin C complex, along with Gentamixin C1 and C1a, and the complex comprises approximately 80% of Gentamicin and exhibits the highest antimicrobial activity. The higher antimicrobial activity of the group C Gentamicins is thought to arise from the lack of hydroxy groups on the 3' and 4' positions of the purpurosamine (2-amino-hexose) fragments. |
| Mechanism of Action: | Aminoglycosides target the 30S ribosomal subunit resulting in an inability to read mRNA ultimately producing a faulty or nonexistent protein. |
| Spectrum: | Gentamicin is a broad-spectrum antibiotic; however, it is mostly used to treat infections caused by Gram-negative bacteria. It is effective against several strains of <i>Mycoplasma</i> . |
| Microbiology Applications | Gentamicin EvoPure® compounds can be used to study effects of individual Gentamicin components on various bacterial strains. |
| References: | <p>Davis, BD (1987) Mechanism of Bactericidal Action of Aminoglycosides. Microbiol. Rev. 51(3): 341-350 PMID 3312985</p> <p>Stypulkowska K, Blazewicz A, Fijalek Z, Sarna K.(2010) Determination of gentamicin sulphate composition and related substances in pharmaceutical preparations by LC with charged aerosol detection. Chromatograph. 72(11-12):1225-1229 PMID 21212825</p> <p>Vydrin, AF (2003) Component composition of gentamicin sulfate preparations. Pharma. Chem. J 37(8): 448-449</p> <p>Weinstein, MJ, Wagman GH, Oden EM and Marquez JA (1967) Biological activity of the antibiotic components of the gentamicin complex. J. Bacteriol. 94(3):789-790 PMID 4962848</p> |

