Gentabet ®

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Ear Drops

Composition

Gentamicin I.P..... 0.3% w/v
Clotrimazole.....1% w/v
Betamethasone Depropionate U.S.P.....0.025% w/v
Lignocaine HCL.....2% w/v
In glycerin I.P & Propylene Glycol I.P.....q.s.

Indications

Gentabet can cause severe hearing and kidney problems. Gentabet eliminates bacteria that cause many kinds of infections, including lung, skin, bone, joint, stomach, blood, and urinary tract infections.

Description

The binding of gentamicin (Gm) to Escherichia coli ribosomes and ribosomal subunits has been studied. By means of equilibrium dialysis and of statistical interpretation of the data it was found that [3H]gentamicin C2 and 6'-N-[3H]methylgentamicin C1a interact with three classes of sites on tight-coupled 70-S species: a first class concerning the tight and non-cooperative interaction with one drug molecule (Kd = 0.6 microM), a second class in which about five Gm molecules bind cooperatively (mean Kd = 10 microM), and a third class of very high capacity in which up to 70 drug molecules may interact. The extreme cooperativity of the third class of sites induces such an increase in the affinity for Gm that it may allow the shift of molecules already bound from high-affinity sites towards lower-affinity sites. The alteration of a ribosomal protein, L6, in a gentamicin- resistant mutant of E. coli abolished the multiclass and the cooperative aspects of ribosomes--gentamicin interaction.

The large ribosomal subunits from E. coli MRE 600 strain interact cooperatively with Gm, whereas 50-S particles from the resistant mutant bind the drug in a diffuse way with high capacity and low affinity. The small subunits from both strains behave identically towards Gm. A good correlation is observed in comparing the gentamicin concentrations capable of saturating the different ribosomal classes of sites with concentrations inducing its multiphasic effects on protein synthesis.

Dosage

As per the physician’s advice.