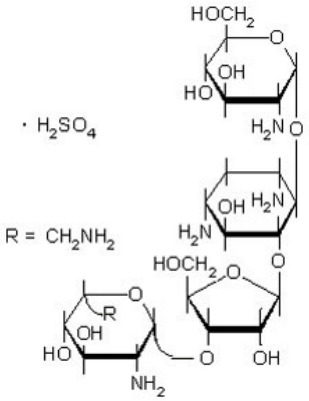
P710
Paromomycin Sulfate

Synonyms:	O-2-Amino-2-deoxy-α-D-glucopyranosyl-(1→4)-O-[O-2,6-diamino-2,6-dideoxy-β-L-idopyranosyl-(1→3)-β-D-ribofuranosyl-(1→5)]-2-deoxy-D-streptamine Sulfate
CAS:	1263-89-4
Formula:	$C_{23}H_{45}N_5O_{14}•H_2SO_4$
Mol. Weight:	713.7



Properties

Form:	Powder
Appearance:	Cream to Yellow Powder
Application:	Plant Tissue Culture Antibiotic
Solubility:	Soluble in Water
Storage Temp:	Room Temperature
Other Notes:	This product is hygroscopic. Plant Tissue Culture Tested.

Application Notes

Paromomycin is an aminoglycoside antibiotic with similar spectrum to that of neomycin. Its mode of action is to inhibit protein synthesis at the initiation and elongation stages by binding to the 16S ribosomal RNA. Paromomycin is effective against various protozoa, e.g., *Leishmania* spp., *Entamoeba histolytica*, and *Cryptosporidium* spp. It has been reported that cross-resistance between paromomycin with other antibiotics, e.g., kanamycin, framycin, neomycin and streptomycin.[2]

In molecular biology applications, paromomycin has been reported to be used as a selection agent.[3, 4]

Please Note: While *Phyto*Technology Laboratories™ tests each lot of this product with two or more plant cell/ tissue culture lines, it is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

References

1. *Merck* **13**, 7113
2. *Martindale: The Complete Drug Reference*, 35th ed., Paul S. Blake, Ed. (Royal Pharmaceutical Society, 2007), p. 759.
3. Kimberly A. Torbert, Howard W. Rines, and David A. Somers. 1995. Use of paromomycin as a selective agent for oat transformation. *Plant Cell Reports*. Vol 14(10). Pp. 635-640.
4. César Petri, Sonia López-Noguera, Nuria Alburquerque, José Egea, Lorenzo Burgos. 2008. An antibiotic-based selection strategy to regenerate transformed plants from apricot leaves with high efficiency. *Plant Science*. Vol 175(6). Pp. 777-783.

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