4-Epidoxycycline

Item No. 23225

CAS Registry No.: 6543-77-7
Formal Name: (4R,4aR,5S,5aR,6R,12aS)-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentalohydroxy-6-methyl-1,11-dioxo-2-naphthacenecarboxamide

Synonym: 4-ED
MF: C_{22}H_{24}N_{2}O_{8}
FW: 444.4
Purity: ≥70%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

4-Epidoxycycline is supplied as a solid. A stock solution may be made by dissolving the 4-epidoxycycline in the solvent of choice. 4-Epidoxycycline is slightly soluble in methanol and water.

Description

4-Epidoxycycline is the 4-epimer hepatic metabolite of the antibiotic doxycycline (Item No. 14422). Unlike doxycycline, 4-epidoxycycline lacks antibiotic activity, therefore, it may not induce the intestinal inflammation in mice associated with doxycycline use. It is an alternative to doxycycline to inactivate the transactivator protein tTA or activate the reverse transactivator rTAA protein in Tet-Off- and Tet-On-based gene expression systems in vitro and in mice.

References