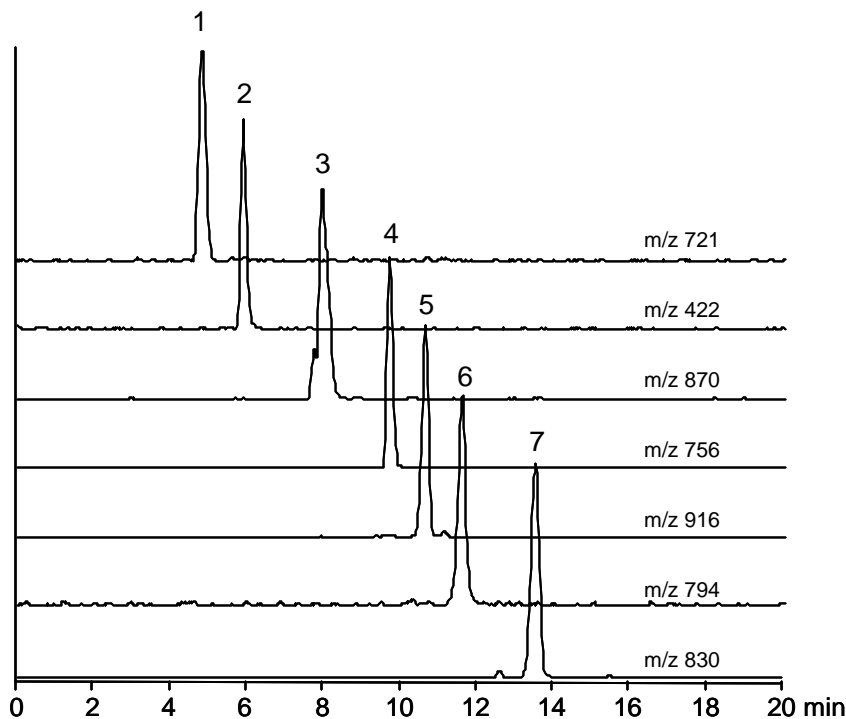


マクロライド系抗生物質

Macrolide antibiotics

マクロライド系抗生物質は、比較的副作用が少なく薬効の幅が広い抗生物質です。ヒトのみに限らず、動物用医薬品としても使用されています。キタサマイシンはロイコマイシン A1, A3~A9 等の多成分からなる混合物で、日本薬局方ではロイコマイシン A5 の量をキタサマイシンの量(力価)として表すとしています。またジョサマイシンとロイコマイシン A3 は同一物質です。

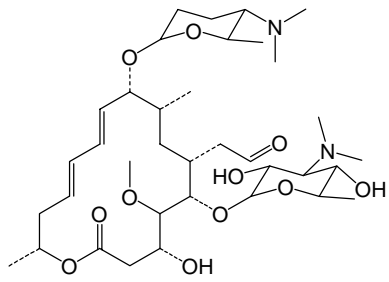
Macrolide antibiotics are known to show less side effects, and have various beneficial effects. They are applied not only to human being but animals. Kitasamycin consists of leucomycin A1, A3-9. The Japanese pharmacopoeia defines the amount of kitasamycin as that of leucomycin A5. "Josamycin" is another name of leucomycin A3.



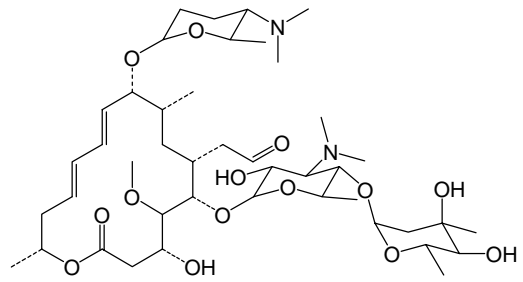
1. ネオスピラマイシン (10 ppm)
Noespiramycin (M.W. 698.9)
2. スピラマイシン (10 ppm)
Spiramycin (M.W. 843.1)
3. チルミコシン (10 ppm)
Tilmicosin (M.W. 869.1)
4. エリスロマイシン (10 ppm)
Erythromycin (M.W. 733.9)
5. タイロシン (10 ppm)
Tylosin (M.W. 916.1)
6. キタサマイシン (10 ppm)
Kitasamycin (M.W. 771.9)
(Leucomycin A5)
7. ジョサマイシン (10 ppm)
Josamycin (M.W. 828.0)

【HPLC Conditions】

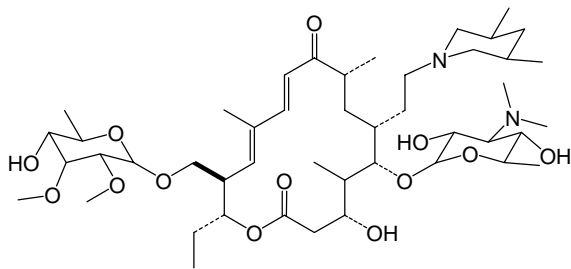
- Column : CAPCELL PAK C₁₈ MGII S3 ; 2.0 mm i.d. x 100 mm
- Mobile phase : (A) 0.1 vol% HCOOH in H₂O, (B) 0.1 vol% HCOOH in CH₃CN
B% 15% (0.0 min) -> 50% (15.0 min) -> 50% (20.0 min) -> 15% (20.1 min) Gradient
- Flow rate : 200 μ L/min
- Temperature : 40 $^{\circ}$ C
- Detection : MS ESI Positive
- Inj. vol. : 2 μ L
- Sample dissolved in : Each standard was dissolved in methanol at 1000 ppm. 10 μ L of all solutions were added together, and diluted to 1 mL with 40% acetonitrile.
- ※ 1 μ g/mL = 1 ppm



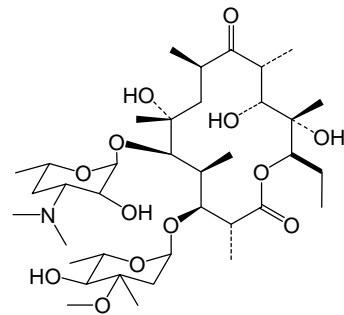
1. Noespiramycin



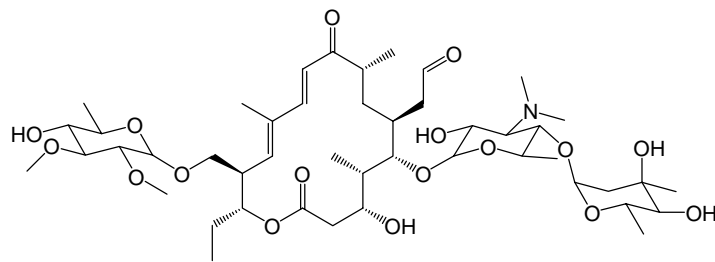
2. Spiramycin



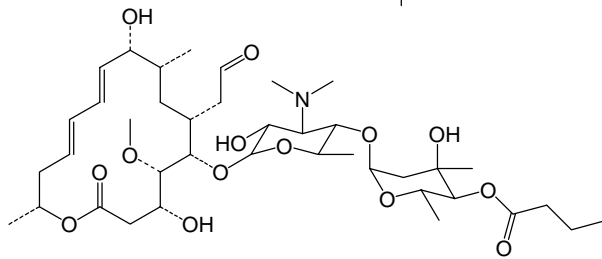
3. Tilimicosin



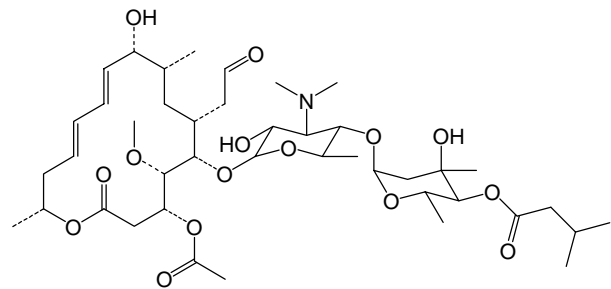
4. Erythromycin



5. Tylosin



6. Kitasamycin
(Leucomycin A5)



7. Josamycin