

## PRODUCT DATA SHEET

Code No.: BIA-N1574

Pack sizes: 1 mg, 5 mg

Synonyms: Nosiheptine, Multhiomycin, Primofax, RP 9671

## Specifications

Nosiheptide

CAS # : **56377-79-8** 

 $\mbox{Molecular Formula} \qquad \qquad : \quad \mbox{$C_{51}$H}_{43} \mbox{$N_{13}$O}_{12} \mbox{$S_{6}$}$ 

Molecular Weight : 1222.4

Source : Streptomyces sp.

Appearance : Yellow solid
Purity : >95% by HPLC

Long Term Storage : -20°C

Solubility : Soluble in ethanol, methanol, DMF or DMSO.

## Application Notes

Nosiheptide is a bicyclic thiopeptide antibiotic produced by several species of actinomycetes, notably Streptomyces, first reported by Japanese researchers in 1970. Unlike other bicyclic thiopeptides such as thiostrepton, the second macrocyclic ring is linked by relatively fragile lactone and thiolactone bridges to the core cyclic peptide. Nosiheptide has broad spectrum antibacterial activity, and has recently demonstrated a prolonged post-antibiotic effect in both nosocomial and community-acquired MRSA compared with vancomycin. Despite its long history in animal health, nosiheptide has not been extensively studied and is regarded as a "lost antibiotic" largely escaping intensive investigation for human application.

## References

- 1. A new antibiotic, multhiomycin. Tanaka T. et al. J. Antibiot. 1970, 23, 231.
- 2. Identity of multhiomycin with nosiheptide. Endo T. and Yonehara H. J. Antibiot, 1978, 31, 623.
- 3. Thiostrepton group of antibiotics. Pestka S. and Bodley J. Antibiotics. III. 1975, 551-573 ed. Corcoran J.W. & Harn F.E., Springer-Verlag, New York.
- 4. Activity of the thiopeptide antibiotic, nosiheptide, against contemporary strains of methicillin-resistant Staphylococcus aureus. Haste N.M. et al. J. Antibiot. 2012, 65, 593.

Updated: 2 December 2014