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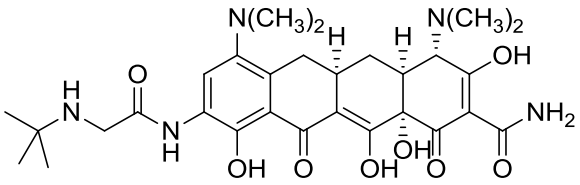
PRODUCT DATA SHEET

Tigecycline

Code No.: **BIA-T1371**

Pack sizes: **1 mg, 5 mg**



Synonyms : Glycylcycline, GAR 936, 9-t-Butylglycylamidominocycline

Specifications

CAS #	:	**220620-09-7**
Molecular Formula	:	**$C_{29}H_{39}N_5O_8$**
Molecular Weight	:	**585.7**
Source	:	**Semi-synthetic**
Appearance	:	**Orange solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.**

Application Notes

Tigecycline is a semi-synthetic tetracycline prepared by the introduction of a tert-butylaminoacetamido group into a previously unexplored and unsubstituted region of existing tetracyclines. Like other tetracyclines, tigecycline acts by reversibly binding to the 30S ribosomal subunit and inhibits protein translation by blocking entry of aminoacyl-tRNA into the ribosome A site. The enhanced activity can be attributed to stronger binding affinity, thus minimising the impact of existing mechanisms of resistance. Tigecycline is regarded as the first of a new class of glycylcyline antibiotics. Critical comparison to the tetracycline class appears to be lacking in the literature.

References

1. Synthesis and antibacterial activity of 9-substituted minocycline derivatives. Suma P-E. et al. Bioorg. Med. Chem. Lett. 2006, 16, 400.
2. Tigecycline: First of a new class of antimicrobial agents. Rose W.E. & Rybak M.J. Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy 2006, 26, 1099.

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