Tigecycline is a clinically useful antibiotic.\textsuperscript{1,2} It is a glycylcycline derivative of minocycline that binds to the 30S ribosomal subunit of bacteria blocking the interaction of aminoacyl-tRNA with the ribosome. Tigecycline is active against Gram-positive and -negative bacteria, anaerobic bacteria and drug resistant bacteria such as MRSA, MRSE, and VRE. Tigecycline has also been shown to be selectively toxic to human acute myeloid leukemia cells over normal hematopoietic cells via inhibition of mitochondrial protein translation.\textsuperscript{3} It has also been found to be effective against other cancers including non-small cell lung cancer\textsuperscript{4}, melanoma\textsuperscript{5}, lymphoma\textsuperscript{6}, and osteosarcoma\textsuperscript{7}.

3) Skrtic et al. (2011) Inhibition of mitochondrial translation as a therapeutic strategy for human acute myeloid leukemia; Cancer Cell 20 674
5) Hu et al. (2016) Antibiotic drug tigecycline inhibits melanoma progression and metastasis in a p21CIP1/Waf1-dependent manner; Oncotarget 7 3171
6) D’Andrea et al. (2016) The mitochondrial translational machinery as a therapeutic target in Myc-driven lymphomas.; Oncotarget 7 72415

**PHYSICAL DATA**

Molecular Weight: 585.66
Molecular Formula: C_{29}H_{39}N_{5}O_{8}
Purity: >98% by HPLC
NMR: (Conforms)
Solubility: DMSO (>25 mg/ml)
Physical Description: Orange solid
Storage and Stability: Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.