

Product Name:	Borrelidin
Product Number:	B041
CAS Number:	7184-60-3
Molecular Formula:	C ₂₈ H ₄₃ NO ₆
Molecular Weight:	489.6
Appearance:	White Lyophilisate
Storage Conditions:	-20°C
Description:	<p>Borrelidin is an unusual nitrile-containing metabolite isolated from Streptomyces. Borrelidin is an important lead for antimalarial discovery, displaying activity against drug-resistant Plasmodia.</p> <p>Borrelidin is soluble in ethanol, methanol, DMF and DMSO.</p>
Mechanism of Action:	<p>Borrelidin is a selective inhibitor of bacterial and eukaryal threonyl-tRNA synthetase and is a very potent angiogenesis inhibitor and induces apoptosis of the capillary tube-forming cells.</p>
References:	<p>A unique hydrophobic cluster near the active site contributes to differences in borrelidin inhibition among threonyl-tRNA synthetases. Ruan T. et al. , J. Biol. Chem. 2005, 280, 571.</p> <p>Borrelidin is an angiogenesis inhibitor; disruption of angiogenic capillary vessels in a rat aorta matrix culture model. Wakabayashi T. et al. , J. Antibiot. 1997, 50, 671.</p> <p>Anti-angiogenesis effects of borrelidin are mediated through distinct pathways: threonyl-tRNA synthetase and caspases are independently involved in suppression of proliferation and induction of apoptosis in endothelial cells. Kawamura T. et al. , J. Antibiot. 2003, 56, 709.</p>