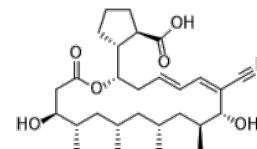


**Product Name** : Borrelidin  
**Cat. No.** : PC-26820  
**CAS No.** : 7184-60-3  
**Molecular Formula** : C<sub>28</sub>H<sub>43</sub>NO<sub>6</sub>  
**Molecular Weight** : 489.65  
**Target** : Parasite  
**Solubility** : 10 mM in DMSO



## Biological Activity

Borrelidin is a small molecule nitrile-containing macrolide inhibitor of bacterial and eukaryal threonyl-tRNA synthetase (ThrRS), inhibits protein synthesis, also shows stage-specific growth inhibition for *Plasmodium falciparum*.

Borrelidin potently inhibits the proliferation of ALL cell lines with IC<sub>50</sub> of 50 ng/mL.

Borrelidin is able to increase the level of apoptosis and cause G(1) arrest in ALL cell lines.

Borrelidin also inhibits a cyclin-dependent kinase (CDK), Cdc28/Cln2, of *Saccharomyces cerevisiae* with IC<sub>50</sub> of 24 μM.

Borrelidin has strong antimalarial activities, with IC<sub>50</sub>s of 1.9 nM and 1.8 nM against K1 and FCR3 strains of *Plasmodium falciparum*, respectively.

## References

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Tsuchiya E, et al. *J Antibiot (Tokyo)*. 2001 Jan;54(1):84-90.

Aki Ishiyama, et al. *J Antibiot (Tokyo)*. 2011 May;64(5):381-4.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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