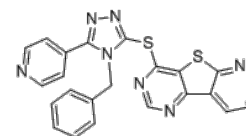


**Product Name** : TH1020  
**Cat. No.** : PC-21372  
**CAS No.** : 1841460-82-9  
**Molecular Formula** : C<sub>23</sub>H<sub>15</sub>N<sub>7</sub>S<sub>2</sub>  
**Molecular Weight** : 453.54  
**Target** : Toll-like Receptor (TLR)  
**Solubility** : 10 mM in DMSO



## Biological Activity

TH1020 is a potent, selective antagonist of **TLR5**/flagellin protein-protein interaction with IC<sub>50</sub> of 0.85  $\mu$ M. TH1020 exhibits nearly negligible inhibition of TLR2, TLR4, TLR7 and TLR8 at 0.78  $\mu$ M, and weak inhibition of TLR3. TH1020 represses the expression of downstream TNF- $\alpha$  signaling pathways mediated by the TLR5/flagellin complex formation. TH1020 almost completely abolishes the TLR5-mediated TNF- $\alpha$  secretion at 0.37  $\mu$ M in primary human peripheral blood mononuclear cells (PBMCs).

## References

- Yan L, et al. *ChemMedChem*. 2016 Apr 19;11(8):822-6.  
Kamada H, et al. *Sci Rep*. 2023 Oct 28;13(1):18490.

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

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