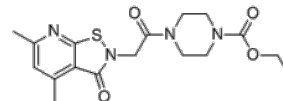


**Product Name** : YMU1  
**Cat. No.** : PC-38453  
**CAS No.** : 902589-96-2  
**Molecular Formula** : C<sub>17</sub>H<sub>22</sub>N<sub>4</sub>O<sub>4</sub>S  
**Molecular Weight** : 378.45  
**Target** : Nucleoside Antimetabolite/Analog  
**Solubility** : 10 mM in DMSO



## Biological Activity

YMU1 is a specific, cell-permeable inhibitor of human thymidylate kinase (hTMPK) with IC<sub>50</sub> of 0.61 μM in enzymatic assays. YMU1 probably affects the ATP-binding pocket of TMPK, has no inhibitory effect on the activity of thymidine kinase 1 (TK1). YMU1 reduced the V<sub>max</sub> of hTMPK in a concentration-dependent manner while increasing the K<sub>m</sub> for ATP without significantly affecting the K<sub>m</sub> for TMP.

YMU1 specifically reduces dTTP level and that the ability of YMU1 to reduce dTTP level is dependent on the presence of TMPK in the cells.

YMU1 sensitizes tumor cells to doxorubicin in vitro and in vivo.

## References

Hu CM, et al. Cancer Cell. 2012 Jul 10;22(1):36-50.

Yi-Hsuan Chen, et al. J Med Chem. 2016 Nov 10;59(21):9906-9918.

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

E-mail: tech@probechem.com