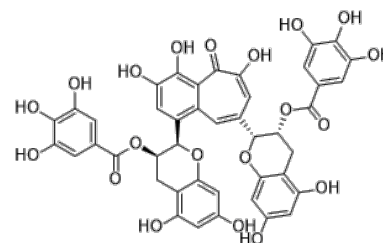


**Product Name** : TFDG  
**Cat. No.** : PC-28281  
**CAS No.** : 30462-35-2  
**Molecular Formula** : C<sub>43</sub>H<sub>32</sub>O<sub>20</sub>  
**Molecular Weight** : 868.70  
**Target** : Deubiquitinase (DUB)  
**Solubility** : 10 mM in DMSO



CAS: 30462-35-2

## Biological Activity

Theaflavin 3,3'-digallate (TF3, TFDG) is a potent Zika virus (**ZIKV**) **protease** inhibitor with IC<sub>50</sub> of 2.3 μM, directly binds to ZIKVpro with K<sub>d</sub> of 8.86 μM, is also a potent selective a potent **USP25** inhibitor with IC<sub>50</sub> of 33 nM, 8.5-fold selectivity over its paralog USP28.

Theaflavin 3,3'-digallate (TF3, TFDG) inhibits ZIKV replication.

Theaflavin 3,3'-digallate inhibits the activity of gp41 and NS2B-3 protease and has antiviral activity against HSV and HIV-1.

Theaflavin 3,3'-digallate (TF3, TFDG) exhibits potent antioxidant and lipid-regulatory activities.

Theaflavin 3,3'-digallate (TF3, TFDG) also exhibits anti-tumor activity in hepatocellular carcinoma (HCC), inhibits Pin1 PPIase activity with IC<sub>50</sub> of 60.33 μM.

Theaflavin 3,3'-digallate (TF3, TFDG) potently suppressed the viability of HepG2, SK-Hep-1 and Huh-7 cells in both dose- and time-dependent manners.

## References

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Zhao L, et al. **Signal Transduct Target Ther.** 2026 May 19;11(1):186.

Lv S, et al. **Biomolecules.** 2026 Apr 14;16(4):583.

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

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