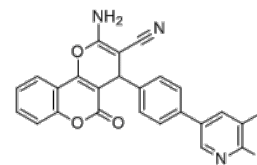


**Product Name** : TFF3 inhibitor AMPC  
**Cat. No.** : PC-38711  
**CAS No.** : 2254434-33-6  
**Molecular Formula** : C<sub>25</sub>H<sub>16</sub>FN<sub>3</sub>O<sub>3</sub>  
**Molecular Weight** : 425.419  
**Target** : Other Targets  
**Solubility** : 10 mM in DMSO



## Biological Activity

AMPC is a first-in-class small-molecule inhibitor of the oncogenic functions of trefoil factor 3 (**TFF3**) that specifically monomerizes dimeric TFF3 to inhibit dimeric TFF3 function, specifically binds to Cys57 of TFF3.

AMPC treatment decreased TFF3 protein levels in a dose-dependent manner in BT474 cells, with a significant reduction of TFF3 levels at 10 uM, decreased HER1-4 phosphorylation and phosphorylation of downstream AKT and p44/42 MAPK in a dose-dependent manner.

AMPC exhibited cell growth inhibition against BT474 and MDA-MB-361 cells with IC<sub>50</sub> of 1.2 and 3.7 uM, respectively. AMPC inhibition of TFF3 decreased monolayer cell viability, increased apoptosis and decreased 3D Matrigel growth of trastuzumab resistant BT474 cells, without re-sensitization to trastuzumab.

AMPC exhibited synergistic inhibitory effects on lung ADC cell growth when combined with various MEK1/2 inhibitors.

## References

- Chong QY, et al. *Oncotarget*. 2017;8:74188–74208.  
Mengyi Zhang, et al. *Oncogenesis*. 2019 Nov 4;8(11):65.  
Poh HM, et al. *Cancers (Basel)*. 2019 Oct 10;11(10):1528.

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

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