

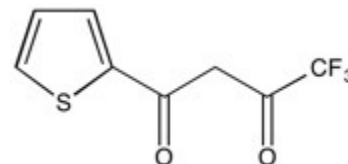
## TTFA, Mitochondrial Complex II inhibitor

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Catalog	Unit
TBI4565-100MG	100 mg
TBI4565-500MG	500 mg

### Product Details

**Formal Name:** 4,4,4-Trifluoro-1-(2-thienyl)-1,3-butanedione  
**Molecular Formula:** C<sub>8</sub>H<sub>5</sub>F<sub>3</sub>O<sub>2</sub>S  
**Formula Weight:** 222.18  
**CAS Number:** 326-91-0  
**Purity:** >98%  
**Formulation:** powder  
**Solubility:** Soluble in DMSO (up to 25 mg/ml) or in Ethanol (up to 25 mg/ml)  
**Storage:** -20°C  
**Stability:** ≥ 1 year.



### Applications

Mitochondrial Complex II inhibitor

### Functions

TTFA blocks the respiratory chain complex II causing inhibition of mitochondrial respiration. Respiratory chain complex II inhibition is caused via binding of TTFA to two ubiquinone binding sites, Qp and Qd. Inhibition of Complex II by TFA has been shown to cause a delay in overall cell cycle progression leading to oxidative stress. TTFA also was found to inhibit porcine liver carboxylesterase (IC<sub>50</sub> = 0.54 μM).

### Application Procedures

First dissolved in DMSO (up to 25 mg/ml) or in Ethanol (up to 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO or Ethanol may be stored at -20°C for up to 1 month.

**For research use only.**