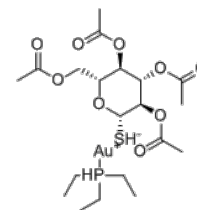


**Product Name** : Auranofin  
**Cat. No.** : PC-20604  
**CAS No.** : 34031-32-8  
**Molecular Formula** : C<sub>20</sub>H<sub>34</sub>AuO<sub>9</sub>PS  
**Molecular Weight** : 678.49  
**Target** : Other Targets  
**Solubility** : 10 mM in DMSO



CAS: 34031-32-8

## Biological Activity

Auranofin is a specific inhibitor of thioredoxin reductase (**TrxR**), also is a potent **UBA1** E1 ubiquitin-activating enzyme activity enhancer.

Auranofin efficiently inhibits both full-length TrxR1 and TrxR2 and truncated TrxR2.

Auranofin binds to the UBA1's ubiquitin fold domain and conjugates to Cys1039 residue.

Auranofin enhances UBA1 interactions with at least 20 different E2 ubiquitin-conjugating enzymes, facilitating ubiquitin charging to E2 and increasing the activities of seven representative E3s in vitro.

Auranofin promotes ubiquitination and degradation of misfolded ER proteins during ER-associated degradation in cells at low nanomolar concentrations.

## References

Cañas A, et al. *Breast Cancer Res.* 2012 Dec 5;14(6):R153.

Dai B, et al. *Cancer Res.* 2013 Sep 1;73(17):5532-43.

3. Yan W, et al. *Nat Commun.* 2023 Aug 9;14(1):4798.

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

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