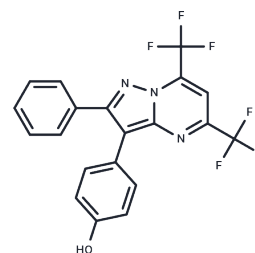


## PHTPP

## Chemical Properties

CAS No. :	805239-56-9
Formula:	C <sub>20</sub> H <sub>11</sub> F <sub>6</sub> N <sub>3</sub> O
Molecular Weight:	423.31
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	PHTPP is a selective ER $\beta$ antagonist.
Targets(IC50)	Estrogen Receptor/ERR,Estrogen/progestogen Receptor
In vitro	PHTPP acts as a selective antagonist for estrogen receptor beta (ER $\beta$ ), significantly decreasing follicle-stimulating hormone (FSH)-mediated cyclic AMP (cAMP) production by 80% ( $p < 0.01$ ), without impacting basal cAMP levels. At a concentration of $10^{-6}$ M, PHTPP inhibits estradiol (E2)-stimulated ER $\beta$ activity but does not affect E2-induced ER $\alpha$ activity. Furthermore, a high concentration of PHTPP ( $10^{-6}$ M) marginally enhances class 1 Igf1 mRNA expression and promotes the DPN-induced increase in class 1 Igf1 mRNA expression.
Cell Research	Cells are plated at a density of 3 to $4 \times 10^5$ in 1 mL of medium per well in a 24-well plate for cell viability and cAMP analysis. Cells are cultured in Dulbecco's Modified Eagle Medium with PHTPP (1 $\mu$ M), or ethanol (0.1%) as the vehicle. The incubator is set to an atmosphere of 5% CO <sub>2</sub> in air at 37°C, and cultures are allowed to acclimate for at least 24 h. The culture medium is then aspirated and replaced with serum-free DMEM/F12 containing 0.1 $\mu$ M androstenedione. The cells are collected for intracellular cAMP and to test cell viability. They are for reference only.

## Solubility Information

Solubility	H <sub>2</sub> O: < 1 mg/mL (insoluble) Ethanol: 3.96 mg/mL (9.35 mM),Sonication is recommended. DMSO: 22.73 mg/mL (53.7 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.72 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3623 mL	11.8117 mL	23.6233 mL
5 mM	0.4725 mL	2.3623 mL	4.7247 mL
10 mM	0.2362 mL	1.1812 mL	2.3623 mL
50 mM	0.0472 mL	0.2362 mL	0.4725 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Compton DR, et al. Pyrazolo[1,5-a]pyrimidines: estrogen receptor ligands possessing estrogen receptor beta antagonist activity. *J Med Chem.* 2004 Nov 18;47(24):5872-93.
- Wang K, Chen Y, Gao S, et al. Norlichexanthone purified from plant endophyte prevents postmenopausal osteoporosis by targeting ER $\alpha$  to inhibit RANKL signaling[J]. *Acta Pharmaceutica Sinica B.* 2021, 11(2): 442-455
- Wang K, Chen Y, Gao S, et al. Norlichexanthone purified from plant endophyte prevents postmenopausal osteoporosis by targeting ER $\alpha$  to inhibit RANKL signaling. *Acta Pharmaceutica Sinica B.* 2020
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- Cui S, Suo N, Yang Y, et al. The aminosteroid U73122 promotes oligodendrocytes generation and myelin formation. *Acta Pharmacologica Sinica.* 2023: 1-12.

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