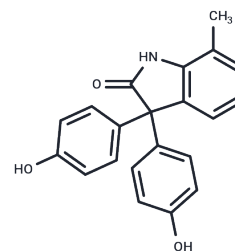


## BHPI

## Chemical Properties

CAS No. :	56632-39-4
Formula:	C <sub>21</sub> H <sub>17</sub> NO <sub>3</sub>
Molecular Weight:	331.36
Appearance:	no data available
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year



## Biological Description

Description	BHPI is a potent ER $\alpha$ inhibitor that blocks nuclear estrogen-ER $\alpha$ -regulated gene expression effectively. It triggers sustained ER $\alpha$ -dependent activation of the endoplasmic reticulum (EnR) stress sensor, notably the unfolded protein response (UPR), and consistently inhibits protein synthesis. With an IC <sub>50</sub> value targeting ER $\alpha$ , BHPI's mechanism involves the rapid hyperactivation of PLC $\gamma$ on the plasma membrane in ER $\alpha$ (+) cancer cells, which produces inositol 1,4,5-triphosphate (IP <sub>3</sub> ). This, in turn, opens EnR IP <sub>3</sub> R calcium channels, leading to a rapid depletion of EnR Ca(2+) stores. SIGNIFICANTLY, BHPI alters estrogen-ER $\alpha$ 's usual effect of causing mild and transient UPR activation by inducing a severe and prolonged UPR activation, transforming the UPR from a protective to a toxic response.
Targets(IC <sub>50</sub> )	Others

## Solubility Information

Solubility	DMSO: 150 mg/mL (452.68 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0179 mL	15.0893 mL	30.1787 mL
5 mM	0.6036 mL	3.0179 mL	6.0357 mL
10 mM	0.3018 mL	1.5089 mL	3.0179 mL
50 mM	0.0604 mL	0.3018 mL	0.6036 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.

Reference

Andruska ND, et al. Estrogen receptor  $\alpha$  inhibitor activates the unfolded protein response, blocks protein synthesis, and induces tumor regression. Proc Natl Acad Sci U S A. 2015 Apr 14;112(15):4737-42.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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