

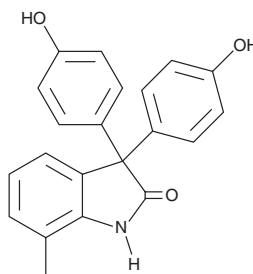
# PRODUCT INFORMATION



## BHPI

Item No. 17750

**CAS Registry No.:** 56632-39-4  
**Formal Name:** 1,3-dihydro-3,3-bis(4-hydroxyphenyl)-7-methyl-2H-indol-2-one  
**MF:** C<sub>21</sub>H<sub>17</sub>NO<sub>3</sub>  
**FW:** 331.4  
**Purity:** ≥95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

BHPI is supplied as a crystalline solid. A stock solution may be made by dissolving the BHPI in the solvent of choice, which should be purged with an inert gas. BHPI is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of BHPI in these solvents is approximately 14, 11, and 5 mg/ml, respectively.

BHPI is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BHPI should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. BHPI has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

BHPI is an antagonist of estrogen receptor  $\alpha$  (ER $\alpha$ ) that blocks 17 $\beta$ -estradiol-induced proliferation of drug-resistant breast, endometrial, and ovarian cancer cell lines at concentrations ranging from 10 to 1,000 nM.<sup>1</sup> It is effective *in vivo*, driving tumor regression in mice bearing MCF-7 xenografts at a dose of 15 mg/kg daily.<sup>1</sup> BHPI specifically inhibits ER $\alpha$ -dependent gene expression and protein synthesis by activating the unfolded protein response in cells.<sup>1</sup>

### Reference

1. Andruska, N.D., Zheng, X., Yang, X., *et al.* Estrogen receptor  $\alpha$  inhibitor activates the unfolded protein response, blocks protein synthesis, and induces tumor regression. *Proc. Natl. Acad. Sci. USA* **112**(15), 4737-4742 (2015).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/08/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM