



Certificate of Analysis

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Product Name: PPT Catalog No.: 1426 Batch No.: 8

CAS Number: 263717-53-9

IUPAC Name: 4,4',4"-(4-Propyl-[1*H*]-pyrazole-1,3,5-triyl)*tris*phenol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{24}H_{22}N_2O_3.^{1}/_4H_2O$

Batch Molecular Weight: 390.95 **Physical Appearance:** White solid

Solubility: ethanol to 5 mM

DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.55$ (Ethyl acetate:Petroleum ether [3:7])

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 73.73 5.8 7.17 Found 73.89 5.62 7.2

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use



Product Information

Print Date: Feb 25th 2025

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IUPAC Name: 4,4',4"-(4-Propyl-[1*H*]-pyrazole-1,3,5-triyl)*tris*phenol

Description:

PPT is a potent, subtype-selective estrogen receptor agonist (EC $_{50}$ ~ 200 pM); displays 410-fold selectivity for ER α over ER β . Prevents ovariectomy-induced weight gain and loss of bone mineral density, and induces gene expression in the hypothalamus following systemic administration in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₄H₂₂N₂O₃. ½H₂O

Batch Molecular Weight: 390.95 Physical Appearance: White solid

Minimum Purity: ≥99% Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

ethanol to 5 mM DMSO to 100 mM

This compound is hygroscopic and may absorb atmospheric moisture during prolonged storage, causing the solid to become sticky and/or collapse into a gel or glass-like form. Although purity is unaffected, it may be difficult to extract the full quantity from the vial. In such a situation, we recommend that solutions are made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Harris *et al* (2002) Characterization of the biological roles of the estrogen receptors, $ER\alpha$ and $ER\beta$, in estrogen target tissues in vivo through the use of an $ER\alpha$ -selective ligand. Endocrinology **143** 4172. PMID: 12399409.

Kraichely *et al* (2000) Conformational changes and coactivator recruitment by novel ligands for estrogen receptor-α and estrogen receptor-β: correlations with biological character and distinct differences among SRC coactivator family members. Endocrinology *141* 3534. PMID: 11014206.

Stauffer *et al* (2000) Pyrazole ligands: structure-affinity/activity relationships and estrogen receptor-α-selective agonists. J.Med.Chem. *43* 4934. PMID: 11150164.

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