

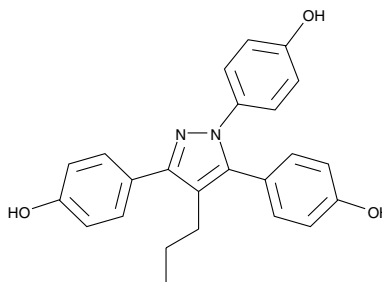
Product Information



Propylpyrazole Triol

Item No. 10008841

CAS Registry No.: 263717-53-9
Formal Name: 4,4',4''-(4-propyl-1H-pyrazole-1,3,5-triyl)tris-phenol
Synonym: PPT
MF: C₂₄H₂₂N₂O₃
FW: 386.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 255 nm



Laboratory Procedures

For long term storage, we suggest that propylpyrazole triol (PPT) be stored as supplied at -20°C. It should be stable for at least two years.

PPT is supplied as a crystalline solid. A stock solution may be made by dissolving the PPT in an organic solvent purged with an inert gas. PPT is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PPT in ethanol is approximately 10 mg/ml and it is approximately 20 mg/ml in DMSO and DMF.

PPT is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PPT should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PPT has a solubility of approximately 0.15 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Estrogen receptor α (ER α) and ER β are ligand-activated transcription factors that mediate the actions of estrogen. Activation of ER α , but not ER β , is required for the cardioprotective effects of estradiol. PPT is an ER α selective agonist with a 410-fold relative binding affinity for ER α (49%) versus ER β (0.12%) and therefore activates gene transcription only through ER α .^{1,2} In an *in vivo* rabbit model of ischemia-reperfusion injury, treatment with estradiol and PPT, but not diarylpropionitrile (a selective agonist of ER β) significantly decreased the infarct size compared with vehicle.³

References

1. Stauffer, S.R., Coletta, C.J., Tedesco, R., *et al.* Pyrazole ligands: Structure-affinity/activity relationships and estrogen receptor- α -selective agonists. *J. Med. Chem.* **43**, 4934-4947 (2000).
2. Meyers, M.J., Sun, J., Carlson, K.E., *et al.* Estrogen receptors- β potency-selective ligands: Structure-activity relationship studies of diarylpropionitriles and their acetylene and polar analogus. *J. Med. Chem.* **44**, 4230-4251 (2001).
3. Booth, E.A., Obeid, N.R., and Lucchesi, B.R. Activation of estrogen receptor- α protects the *in vivo* rabbit heart from ischemia-reperfusion injury. *Am. J. Physiol.* **289**, H2039-H2047 (2005).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10008841

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com

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