

# PRODUCT INFORMATION



## PNU 74654

Item No. 16349

CAS Registry No.: 113906-27-7

Formal Name: 2-phenoxy-benzoic acid,  
2-[(5-methyl-2-furanyl)methylene]  
hydrazide

MF:  $C_{19}H_{16}N_2O_3$

FW: 320.3

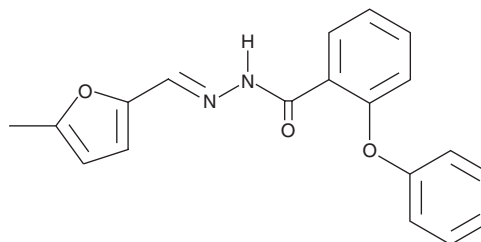
Purity:  $\geq 98\%$

UV/Vis.:  $\lambda_{\max}$ : 318 nm

Supplied as: A crystalline solid

Storage:  $-20^{\circ}\text{C}$

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



### Laboratory Procedures

PNU 74654 is supplied as a crystalline solid. A stock solution may be made by dissolving the PNU 74654 in the solvent of choice. PNU 74654 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of PNU 74654 in these solvents is approximately 1, 25, and 30 mg/ml, respectively.

PNU 74654 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PNU 74654 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. PNU 74654 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

The Wnt signaling pathway is integral to normal biological processes and inappropriately active in many cancers.<sup>1</sup> PNU 74654 binds to  $\beta$ -catenin ( $K_d = 450$  nM), inhibiting its interaction with the transcription factor T cell factor 4 (Tcf4) resulting in disruption of the Wnt signaling pathway.<sup>2</sup> Treatment of human adrenocortical cell lines with PNU 74654 significantly reduced expression of several Tcf/ $\beta$ -catenin target genes.<sup>3</sup>

### References

1. Barker, N. and Clevers, H. Mining the Wnt pathway for cancer therapeutics. *Nat. Rev. Drug Discov.* **5**(12), 997-1014 (2006).
2. Trosset, J.-Y., Dalvit, C., Knapp, S., *et al.* Inhibition of protein-protein interactions: The discovery of druglike  $\beta$ -catenin inhibitors by combining virtual and biophysical screening. *Proteins* **64**(1), 60-67 (2006).
3. Durand, J., Lampron, A., Mazzuco, T.L., *et al.* Characterization of differential gene expression in adrenocortical tumors harboring  $\beta$ -catenin (CTNNB1) mutations. *J. Clin. Endocrinol. Metab.* **96**(7), E1206-E1211 (2011).

#### 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.

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