

Catalog # 10-1562 NSC47924

CAS# 6638-24-0 1-((4-Methoxyanilino)methyl)-2-naphthol Lot # S102114

A potent inhibitor of the Leucine-rich repeat protein phosphatase (PHLPP), an enzyme which is a negative regulator of Akt and PKC (IC_{50} =4 μ M). Increases AKT signaling in cells and prevents apoptosis. Also inhibits the 67 kDa laminin receptor (LR) interaction with laminin (LM) and selectively blocks LR-293 cell adhesion to LM (IC_{50} =19.35 μ M) impairing cell migration and invasion. Affects 37/67 kDa LR cell surface localization and interaction with cellular prion protein.

- 1) Sierecki et al. (2010), Discovery of small molecule inhibitors of the PH domain leucine-rich repeat protein phosphatase PHLPP by chemical and virtual screening; J. Med. Chem., **53** 6899
- 2) Pesapane et al. (2015), Discovery of new small molecules inhibiting 67 kDa laminin receptor interaction with laminin and cancer cell invasion; Oncotarget, **6** 18116
- 3) Samataro et al. (2016), The 37/67 kDa laminin receptor (LR) inhibitor, NSC47924, affects 37/67 kDa LA cell surface localization and interaction with the cellular prion protein; Sci. Rep., **6** 24457

PHYSICAL DATA

Molecular Weight: 279.33

Molecular Formula: C₁₈H₁₇NO₂

Purity: 98% by TLC

NMR: (Conforms)

Solubility: DMSO (up to 30 mg/ml) or Ethanol (up to 10 mg/ml with warming)

Physical Description: Yellow solid

Storage and Stability: Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in

DMSO or ethanol may be stored at -20°C for up to 1 month.

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