

Product Data Sheet

Product Name: PHPS1 sodium

Cat. No.: GC61609

Chemical Properties

Cas. No. 1177131-02-0

SMILES O=S(C1=CC=C(C=C1)/N=N/C2C(C3=CC=C(C=C3)[N+](O-)=O)=NN(C2=O)C4=CC=C(C=C4)(O[Na])=O

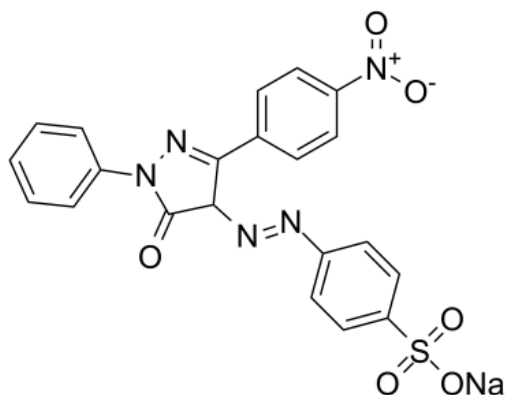
Formula $C_{21}H_{14}N_5NaO_6S$ M.Wt 487.42

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

PHPS1 sodium is a potent and selective Shp2 inhibitor with K_i of 0.73, 5.8, 10.7, 5.8, and 0.47 μ M for Shp2, Shp2-R362K, Shp1, PTP1B, and PTP1B-Q, respectively[1].

PHPS1 (30 μ M; 6 days) inhibits proliferation of human tumor cells[1]. PHPS1 (5-20 μ M; 5-360 minutes) inhibits Erk1/2 but not Akt and Stat3 phosphorylation in a dose-dependent manner[1]. Cell Viability Assay[1] Cell Line: Human cancer cell lines MDA-MB-435, HCT-116 (colon carcinoma),

Caution: Product has not been fully validated for medical applications. For research use only.

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HCT-15 (colon carcinoma), PC-3 (prostate carcinoma), HT-29 (colon carcinoma), NCI-H661 (lung carcinoma), and Caki-1 (kidney carcinoma)

PHPS1 (3 mg/kg; i.p. injection; every day during the last week on the high-fat diet) renders Ldlr^{-/-} mice less susceptible to atherosclerosis development[2]. Animal Model: Ldlr^{-/-} (005061) mice[2]

[1]. Klaus Hellmuth, et al. Specific Inhibitors of the Protein Tyrosine Phosphatase Shp2 Identified by High-Throughput Docking. Proc Natl Acad Sci U S A. 2008 May 20;105(20):7275-80. [2]. Jia Chen, et al. SHP2 Inhibitor PHPS1 Protects Against Atherosclerosis by Inhibiting Smooth Muscle Cell Proliferation. BMC Cardiovasc Disord. 2018 Apr 27;18(1):72.

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