

Product Name: PHP51 sodium salt

Catalog No.: 6771

Batch No.: 1

IUPAC Name: 4-[2-[1,5-Dihydro-3-(4-nitrophenyl)-5-oxo-1-phenyl-4*H*-pyrazol-4-ylidene]hydrazinyl]benzenesulfonic acid sodium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₁₄N₅O₆SNa.2½H₂O

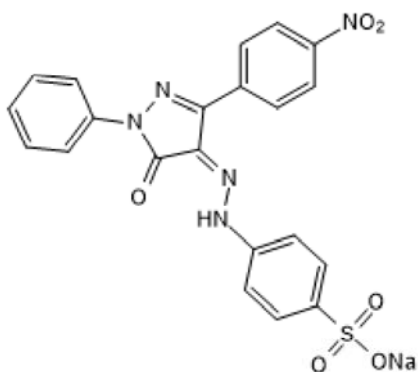
Batch Molecular Weight: 532.46

Physical Appearance: Orange solid

Solubility: DMSO to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	47.37	3.6	13.15
Found	47.22	3.72	13.36

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

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Description:

Shp2 (PTPN11) inhibitor ($IC_{50} = 2.1 \mu M$). Inhibits hepatocyte growth factor-stimulated epithelial cell scattering and branching morphogenesis in vitro. Increases myelin basic protein (MBP) levels in zebrafish embryo spinal cord. Also ameliorates bleomycin-induced pulmonary and dermal fibrosis in vivo.

Physical and Chemical Properties:

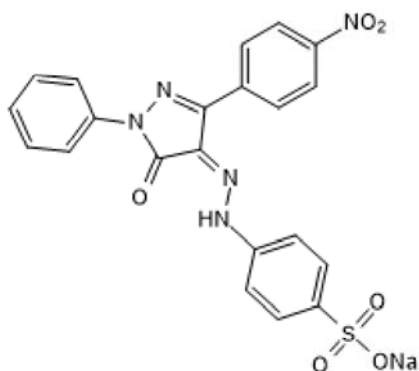
Batch Molecular Formula: $C_{21}H_{14}N_5O_6Na \cdot 2\frac{1}{2}H_2O$

Batch Molecular Weight: 532.46

Physical Appearance: Orange solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 20 mM

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. Our standard recommendations are:

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:

Ahrendsen et al (2018) The protein tyrosine phosphatase Shp2 regulates oligodendrocyte differentiation and early myelination and contributes to timely remyelination. *J.Neurosci.* **38** 787. PMID: 29217681.

Zehender et al (2018) The tyrosine phosphatase SHP2 controls TGFβ-induced STAT3 signaling to regulate fibroblast activation and fibrosis. *Nat.Commun.* **9** 3259. PMID: 30108215.

Hellmuth et al (2008) Specific inhibitors of the protein tyrosine phosphatase Shp2 identified by high-throughput docking. *Proc.Natl.Acad.Sci.U.S.A* **105** 7275. PMID: 18480264.

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