

**PRODUCT: Pifithrin- $\mu$** **ALTERNATE NAME:** 2-phenylethyne-1-sulfonamide; NSC-303580**CATALOG #:** B1083-5, 25**AMOUNT:** 5 mg, 25 mg**STRUCTURE:****MOLECULAR FORMULA:** C<sub>8</sub>H<sub>7</sub>NO<sub>2</sub>S**MOLECULAR WEIGHT:** 181.21**CAS NUMBER:** 64984-31-2**APPEARANCE:** White Solid**SOLUBILITY:** DMSO (>15 mg/ml)**PURITY:** ≥98% by HPLC**STORAGE:** Store at -20°C. Protect from air and light.

**DESCRIPTION:** Pifithrin- $\mu$  (PFT- $\mu$ ) is an inhibitor of p53-mediated apoptosis, preventing p53 binding to Bcl-xL and Bcl-2 at the mitochondria without affecting p53 transactivational activities. *In vitro*, PFT- $\mu$  binds both p53 ( $K_d$  = 0.82 mM) and Bcl-xL ( $K_d$  = 0.80 mM). It reduces p53-mediated apoptosis induced by  $\gamma$ -radiation in mouse thymocytes *in vitro* and protects mice from doses of radiation that cause lethal hematopoietic syndrome. At 25  $\mu$ M, PFT- $\mu$  reduces apoptosis triggered by nutlin-3, which inhibits MDM2/p53 binding and potentiates p53-mediated growth arrest and apoptosis.

**REFERENCES:** Strom, E., *et al.* (2006). *Nat. Chem. Biol.* **2**, 474-479

**HANDLING:** Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

**USAGE:** **FOR RESEARCH CH USE ONLY! Not to be used in humans**