

Pifithrin-mu

Catalog Number :6493124

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: pifithrin-mu, 2-phenylacetylenesulfonamide, NSC 303580

Chemical Name: 2-phenylethynesulfonamide

Molecular Formula: C₈H₇NO₂S

Molecular Weight: 181.2

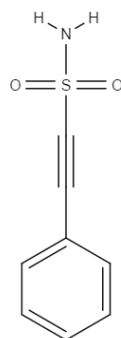
CAS Number: 64984-31-2

Purity: ≥98%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at -20°C.



Description

Pifithrin-mu is a cell-permeable inhibitor of p53, which plays a crucial role in apoptosis, angiogenesis, and genomic stability. It is reported to be capable of increasing the efficiency of inducing pluripotent stem cells and reduce radiation induced cell death. Unlike the alpha version, Pifithrin-mu inhibits the p53-mitochondrial pathway without affecting the transcriptional functions of p53.

Preparation & Storage

Soluble in organic solvents such as ethanol or DMSO. DMSO up to 75mM.

References

1. Strom, E., Sathe, S., Komarov, P. G., Chernova, O. B., Pavlovska, I., Shyshynova, I., ... Gudkov, A. V. (2006). Small-molecule inhibitor of p53 binding to mitochondria protects mice from gamma radiation.; *Nature chemical biology*,;2(9), 474-479.
2. Leu, J. J., Pimkina, J., Pandey, P., Murphy, M. E., George, D. L. (2011). HSP70 inhibition by the small-molecule 2-phenylethynesulfonamide impairs protein clearance pathways in tumor cells.; *Molecular Cancer Research*,;9(7), 936-947.
3. Sekihara, K., Harashima, N., Tamaki, Y., Hieda, Y., Uchida, N., Inomata, T., Harada, M. (2013, September). Antitumor effect induced by combination of radiation with a novel HSP70 inhibitor pifithrin-mu on human prostate cancer. In *EUROPEAN JOURNAL OF CANCER*; (Vol. 49, pp. S232-S233). THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND: ELSEVIER SCI LTD.