PJ34 is a novel and potent inhibitor of poly(ADP-ribose) polymerase (PARP), an enzyme involved in DNA repair and cell proliferation, that dose-dependently inhibits purified PARP enzyme in a cell-free assay with half maximal effective concentration EC50 value of 20 nM. Unlike other PARP inhibitors (such as 3-AB), PJ34 does not possess any antioxidant properties but exhibits 10,000 times greater PARP inhibition than 3-AB (EC50 = 200 μM). PJ34 has been found to have neuro-protective effects and enhance the chemotherapeutic effects in several tumor types. Study results have shown that PJ34 inhibits peroxynitrite-induced cell necrosis with EC50 value of 20
nM and dose-dependently suppresses the growth of HepG2 cells.

Reference:
Sheng-Hui Huang, Min Xiong, Xiao-Ping Chen, Zhen-Yu Xiao, Yin-Feng Zhao and Zhi-Yong Huang. PJ34, an inhibitor of PARP-1, suppresses cell growth and enhances the suppressive effects of cisplatin in liver cancer cells. Oncology Reports 20: 567-572, 2008


Protocol

Cell experiment:

Cell lines HepG2 cells
Preparation method The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.
Reacting conditions 0.5, 1.0 and 2.0 mg/L; 9 days
Applications At the doses of 0.5, 1.0 and 2.0 mg/L, PJ34 significantly inhibited HepG2 cell proliferation on days 6 and 9 of culture.

Animal experiment [3]:

Animal models Nude mice bearing HepG2-derived tumors
Dosage form 3 mg/kg; i.p.; every other day for 21 days
Applications PJ34 inhibited HepG2 cell-derived tumor growth in nude mice.
Other notes Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Reference:
[1]. Sheng-Hui Huang, Min Xiong, Xiao-Ping Chen, Zhen-Yu Xiao, Yin-Feng Zhao and Zhi-Yong
Huang. PJ34, an inhibitor of PARP-1, suppresses cell growth and enhances the suppressive effects of cisplatin in liver cancer cells. Oncology Reports 20: 567-572, 2008

Product Validation

PJ34 inhibits HepG2 cell growth

PJ34 induces HepG2 cell apoptosis

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.