

Product Data Sheet

Product Name: HKC54
Cat. No.: GC79532

Chemical Properties

Cas. No.

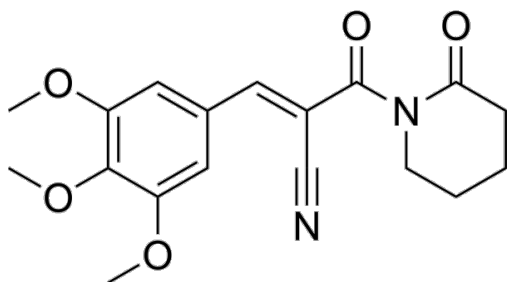
Formula $C_{18}H_{20}N_2O_5$ M.Wt 344.36

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

HKC54 is a selective TRPV2 antagonist with an IC_{50} of 0.4 μ M. HKC54 binds directly to TRPV2 and inhibits TRPV2-mediated calcium influx. HKC54 inhibits glioblastoma cell migration in vitro and breast cancer metastasis in vivo. HKC54 can be used for the research of breast cancer lung metastasis [1].

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

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In Vivo, HKC54 (12.5-25 mg/kg; i.p.; every other day; 5 doses) potentially inhibits breast cancer lung metastasis in Balb/c mice, with no associated body weight loss, and the 25 mg/kg dose nearly eliminates lung metastatic nodules^[1].

In Vitro, HKC54 (5 μ M) significantly inhibits TRPV2-mediated calcium influx in hTRPV2-RFP-transfected HEK293T cells when used as a pretreatment prior to CBD stimulation^[1]. HKC54 (10 μ M) directly engages TRPV2 in MDA-MB-231 cell lysate, as evidenced by significant thermal stabilization of the channel^[1]. HKC54 (5-10 μ M; up to 60 h) inhibits migration of U-251 WT glioblastoma cells in a TRPV2-dependent manner, with no effect on U-251 TRPV2 KD cells^[1]. HKC54 (20 μ M; 6 h) does not deplete intracellular GSH levels in MCF-7 breast cancer cells^[1]. HKC54 (20 μ M; 4 h) does not induce reactive oxygen species in MCF-7 breast cancer cells^[1]. HKC54 (1-100 μ M; 48 h) does not reduce cell viability of U-251 WT or U-251 TRPV2 KD glioblastoma cells^[1].

References:

[1]. Kiely-Collins H, et al. Selective TRPV2 Antagonists Derived from the Natural Product Piperlongumine Inhibit Cancer Cell Migration and Metastasis. ACS Chem Biol. 2026;21(4):674-688.

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