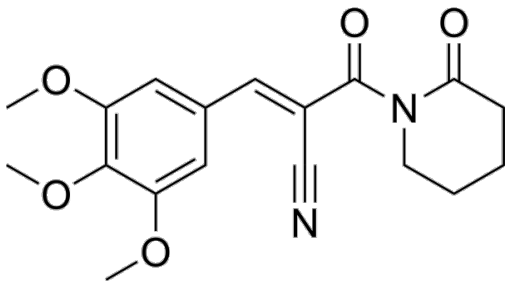
Product Data Sheet

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 μM. 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) potently 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 μM) significantly inhibits TRPV2-mediated calcium influx in hTRPV2-RFP-transfected HEK293T cells when used as a pretreatment prior to CBD stimulation[1]. HKC54 (10 μM) directly engages TRPV2 in MDA-MB-231 cell lysate, as evidenced by significant thermal stabilization of the channel[1]. HKC54 (5-10 μM; 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 μM; 6 h) does not deplete intracellular GSH levels in MCF-7 breast cancer cells[1]. HKC54 (20 μM; 4 h) does not induce reactive oxygen species in MCF-7 breast cancer cells[1]. HKC54 (1-100 μM; 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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