Product Data Sheet

Product Name: MD-3-A45
Cat. No.: GC79483

Chemical Properties

Cas. No.	2314337-87-4		
Formula	$C_{16}H_{15}NO$	M.Wt	237.3
Solubility	DMSO: 50 mg/mL (210.70 mM; Need ultrasonic)	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.		

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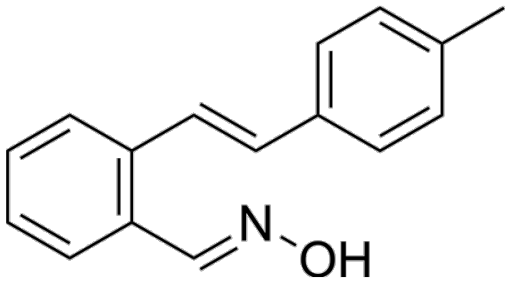
Structure



Background

MD-3-A45 is an inhibitor of fibroblast growth factor 23 (FGF-23). MD-3-A45 blocks the activation of the FGFRs/α-klotho signaling pathway by FGF-23 and inhibits FGF-23-induced ERK activation. MD-3-A45 can be used in the research of chronic kidney disease, hereditary hypophosphatemic rickets and acquired hypophosphatemic rickets [1].

In Vitro, MD-3-A45 completely inhibits FGF-23-induced ERK activation in HEK-293 cells expressing FGFRs/α-Klotho with an IC_{50} of 0.14 μM, and has a metabolic stability half-life of 9 minutes [1].

References:

[1]. Jerome Baudry, et al. Fibroblast growth factor 23 antagonists and related compositions and methods. WO2019084476.

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