Product Data Sheet

Product Name: GN25
Cat. No.: GC15258

Chemical Properties

Cas. No.	1227401-27-5		
Chemical Name	3-[(1,4-dihydro-5,8-dimethoxy-1,4-dioxo-2-naphthalenyl)thio]-propanoic acid		
SMILES	O=C1C=C(SCCC(O)=O)C(C2=C(OC)C=CC(OC)=C21)=O		
Formula	$C_{15}H_{14}O_6S$	M.Wt	322.3
Solubility	≤0.25mg/ml in ethanol;5mg/ml in DMSO;10mg/ml in dimethyl formamide	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	GN25		

Background

GN25 is a novel inhibitor of Snail-p53 binding [1].

P53 is a tumor suppressor that induces cell death, growth arrest and suppresses metastasis, and is often mutated or suppressed by various kinds of cellular signaling pathways in human cancers. In K-Ras-activated cancer cells, oncogenic K-Ras inhibits the p53 function through induction of Snail, which binds to and eliminates p53 through exocytosis. The specific inhibitor against p53-Snail binding would be used as anticancer drug against K-Ras-mutated or Snail-overexpressed cancers such as colon, pancreatic and lung cancers [1].

GN25 is a novel and specific inhibitor of Snail-p53 binding. GN25 is a 2-thio-dimethoxy naphthoquinone analog that induces p53 and p21 expression, and blocks the p53-Snail binding. In K-Ras-transformed mouse embryonic fibroblast (MEF), GN25 induced p53 and p21 in K-Ras-dependent way. In assay with capan-1 extract, GN25 significantly reduced

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interaction between p53 and Snail [1].

In nude mice inoculated A549 cells through i.p. injection, GN25 blocked the tumor progression and also induced tumor regression [1].

Reference:
[1]. Lee SH, Shen GN, Jung YS, et al. Antitumor effect of novel small chemical inhibitors of Snail-p53 binding in K-Ras-mutated cancer cells. Oncogene. 2010 Aug 12;29(32):4576-87.