Product Data Sheet

Product Name: MCC-555
Cat. No.: GC14595

Chemical Properties

Cas. No.	161600-01-7		
Chemical Name	5-[[6-[(2-fluorophenyl)methoxy]-2-naphthalenyl]methyl]-2,4-thiazolidinedione		
SMILES	FC1=CC=CC=C1COC2=CC(C=CC(CC3SC(NC3=O)=O)=C4)=C4C=C2		
Formula	$C_{21}H_{16}FNO_3S$	M.Wt	381.4
Solubility	≤1mg/ml in ethanol;30mg/ml in DMSO;30mg/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	MCC-555		

Background

MCC-555, also known as RWJ-241947, is a novel peroxisome proliferator–activated receptor γ ligand [1].

The PPARγ receptors mainly express in adipose tissue, colon and macrophages involved in regulating fatty acid storage and glucose metabolism. It has been identified that PPARγ is the major functional receptor for the thiazolidinedione class of insulin-sensitizing drugs. The PPARγ receptor is implicated in the processes of adipogenesis and systemic insulin action [2].

MCC-555 (5 μmol/L) exhibited an apoptotic activity in human colorectal cancer cells. MCC-555 significantly increased NAG-1 expression in a PPARγ-independent manner. In HCT-116 cells, treatment with MCC-555 induced apoptosis. MCC-555 affected NAG-1 mRNA stability. MCC-555 treatment induced rapid phosphorylation of ERK1/2 [1]. In various solid and hematological tumor cell lines, MCC-555 showed antiproliferative

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activity against prostate cancer cells, with the strongest effect against the androgen-independent PC-3 prostate cancer cells [2].

In male beige/nude/X-linked immunodeficient (BNX) mice, treatment with MCC-555 profoundly suppressed growth of PC-3 prostate cancer xenografts with prominent apoptosis, fibrosis, and inflammatory and giant cell reaction. The experimented mice showed significantly decreased cholesterol [3].

References:
[1] Yamaguchi K, Lee S H, Eling T E, et al. A novel peroxisome proliferator–activated receptor γ ligand, MCC-555, induces apoptosis via posttranscriptional regulation of NAG-1 in colorectal cancer cells[J]. Molecular cancer therapeutics, 2006, 5(5): 1352-1361.
[2] Spiegelman B M. PPAR-gamma: adipogenic regulator and thiazolidinedione receptor[J]. Diabetes, 1998, 47(4): 507-514.
[3] Kumagai T, Ikezoe T, Gui D, et al. RWJ-241947 (MCC-555), a unique peroxisome proliferator-activated receptor-γ ligand with antitumor activity against human prostate cancer in vitro and in beige/nude/X-linked immunodeficient mice and enhancement of apoptosis in myeloma cells induced by arsenic trioxide[J]. Clinical Cancer Research, 2004, 10(4): 1508-1520.