Product Data Sheet

Product Name: GQ-16
Cat. No.: GC11916

Chemical Properties

Cas. No.	870554-67-9		
Chemical Name	5Z-[(5-bromo-2-methoxyphenyl)methylene]-3-[(4-methylphenyl)methyl]-2,4-thiazolidinedione		
SMILES	BrC1=CC(/C=C2C(N(CC3=CC=C(C)C=C3)C(S/2)=O)=O)=C(OC)C=C1		
Formula	$C_{19}H_{16}BrNO_3S$	M.Wt	418.3
Solubility	≤0.33mg/ml in DMSO;5mg/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	GQ-16		

Background

GQ-16 is a novel partial agonist of peroxisome proliferator-activated receptor γ (PPARγ) involved in promoting insulin sensitization [1]. PPAR-γ is mainly involved in fat cell differentiation and insulin sensitivity.

In vitro: GQ-16 was an effective inhibitor of Cdk5-mediated phosphorylation of PPARγ, exhibiting a Ki value of 160 nM. GQ-16 was specific for PPARγ and possessed no detectable activity when tested for the ability to activate other PPAR subtypes (PPARα or PPARβ/δ) or RXRα. In both NIH-3T3 and C3H10T1/2 cell models with established PPARγ-dependent adipogenesis, GQ-16 displayed reduced the potential of adipogenic [1].

In vivo: In the mouse model of diet-induced obesity and insulin resistance, administration of GQ-16 (20 mg/kg/day) by oral gavage daily blocked HFD-dependent effects on intracellular inflammatory pathways and improved insulin sensitivity. GQ-16 did not elicit increased weight gain [1].

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Reference:
[1] Amato A A, Rajagopalan S, Lin J Z, et al. GQ-16, a novel peroxisome proliferator-activated receptor γ (PPARγ) ligand, promotes insulin sensitization without weight gain[J]. Journal of Biological Chemistry, 2012, 287(33): 28169-28179.

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