Product Data Sheet

Product Name: TCS 3035
Cat. No.: GC15716

Chemical Properties

Cas. No.	871085-49-3		
Chemical Name	(Z)-2-(4-((2,4-dioxothiazolidin-5-ylidene)methyl)phenoxy)acetic acid		
SMILES	O=C(/C(S1)=C/C2=CC=C(OCC(O)=O)C=C2)NC1=O		
Formula	$C_{12}H_9NO_5S$	M.Wt	279.27
Solubility	<27.93mg/ml in DMSO	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	TCS 3035		

Background

Target: GPR35

IC50: N/A

TCS3035, a GPR35 agonist, shows significantly high potency at rat and human GPR35 orthologs with pEC50 values of 5.13 and 5.86, respectively [1]. G protein-coupled receptors (GPCRs) are the largest and most studied group of transmembrane polypeptides. GPR35 is a poorly characterized G protein-coupled receptor that plays an important role in immune-modulation, gastric function and the regulation of insulin secretion. GPR35 is predominantly expressed in the gastro-intestinal tract and immune tissues. The tryptophan metabolite kynurenic acid has been suggested to be the endogenous ligand for GPR35 [1].

In vitro: Mutation to alanine of the conserved arginine at position 3.36 in either FLAG-hGPR35-eYFP or FLAG-rGPR35-eYFP resulted in a complete loss of agonist function of

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TCS3035 [1]. In addition, TCS3035-induced internalization of GPR35 is correlated with TCS3035 potency in receptor-β-arrestin-2 interaction BRET assays. Mutation to alanine of tyrosine 3.32 in transmembrane domain III abolished β-arrestin-2 recruitment in response to TCS3035 [1].

In vivo: N/A

Reference:

1. Jenkins L, Alvarez-Curto E, Campbell K, de Munnik S, Canals M, Schlyer S, et al. Agonist activation of the G protein-coupled receptor GPR35 involves transmembrane domain III and is transduced via Galpha(1)(3) and beta-arrestin-2. Br J Pharmacol. 2011;162(3):733-48.

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