Product data sheet



MedKoo Cat#: 406131				
Name: GW6471				
CAS: 880635-03-0				
Chemical Formula: C ₃₅ H ₃₆ F ₃ N ₃ O ₄				
Exact Mass: 619.2658				
Molecular Weight: 619.6852				
Product supplied as:	Powder			
Purity (by HPLC):	\geq 98%	_		
Shipping conditions	Ambient temperature			
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.			
	In solvent: -80°C 3 months; -20°C 2 weeks.			



1. Product description:

GW6471 is a PPAR α antagonist (IC50 = 0.24 μ M). GW6471 enhances the binding affinity of the PPAR α ligand-binding domain to the co-repressor proteins SMRT and NCoR.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM			
DMF	20.0	32.27			
DMF:PBS (pH 7.2)	0.33	0.53			
(1:2)					
DMSO	70.62	113.96			
Ethanol	12.07	19.47			

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.61 mL	8.07 mL	16.14 mL
5 mM	0.32 mL	1.61 mL	3.23 mL
10 mM	0.16 mL	0.81 mL	1.61 mL
50 mM	0.03 mL	0.16 mL	0.32 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study In vitro study

1. Castelli V, Catanesi M, Alfonsetti M, Laezza C, Lombardi F, Cinque B, Cifone MG, Ippoliti R, Benedetti E, Cimini A, d'Angelo M. PPARα-Selective Antagonist GW6471 Inhibits Cell Growth in Breast Cancer Stem Cells Inducing Energy Imbalance and Metabolic Stress. Biomedicines. 2021 Jan 28;9(2):127. doi: 10.3390/biomedicines9020127. PMID: 33525605; PMCID: PMC7912302.

In vivo study

1. Pridgeon CS, Bolhuis DP, Milosavljević F, Manojlović M, Végvári Á, Gaetani M, Jukić MM, Ingelman-Sundberg M. Hepatocyte Thorns, A Novel Drug-Induced Stress Response in Human and Mouse Liver Spheroids. Cells. 2022 May 10;11(10):1597. doi: 10.3390/cells11101597. PMID: 35626634; PMCID: PMC9139950.

7. Bioactivity

Biological target:

GW6471 is a potent PPARα antagonist.

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In vitro activity

The obtained mammospheres were then treated with the specific PPAR α antagonist GW6471, after which, glucose, lipid metabolism, and invasiveness were analyzed. Notably, GW6471 reduced cancer stem cell viability, proliferation, and spheroid formation, leading to apoptosis and metabolic impairment.

Reference: Biomedicines. 2021 Jan 28;9(2):127. https://pubmed.ncbi.nlm.nih.gov/33525605/

In vivo activity

In summary, the capability of GW6471 to increase thorn protein deposition in the liver was also translated to an in vivo system, as it was apparent from collagen and cytokeratin accumulation in GW6471-treated mouse livers.

Reference: Cells. 2022 May 10;11(10):1597. https://pubmed.ncbi.nlm.nih.gov/35626634/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.