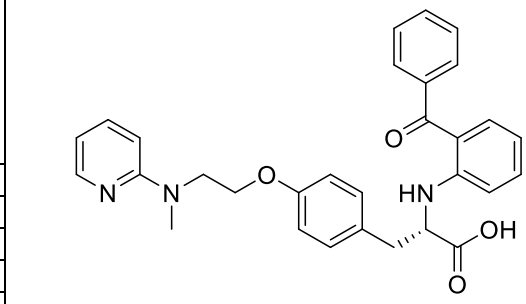
Product data sheet

MedKoo Cat#: 526768 Name: GW1929 CAS: 196808-24-9 Chemical Formula: $C_{30}H_{29}N_3O_4$ Exact Mass: 495.2158 Molecular Weight: 495.579	
Product supplied as:	Powder
Purity (by HPLC):	≥ 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:
GW-1929 is a potent and selective PPAR-γ agonist that binds with a Ki value of 1.4 nM, with greater than 1,000-fold selectivity over other PPAR subtypes. GW1929 inhibits α7 nAChR expression through PPARγ-independent activation of p38 MAPK and inactivation of PI3-K/mTOR: The role of Egr-1. GW1929 ameliorates neurological damage in global cerebral ischemic-reperfusion injury through reduction in inflammation and DNA fragmentation.

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	30.0	60.54
DMSO	32.5	65.58
DMSO:PBS (pH 7.2) (1:1)	0.5	1.01
Ethanol	20.0	40.36

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	2.02 mL	10.09 mL	20.18 mL
5 mM	0.40 mL	2.02 mL	4.04 mL
10 mM	0.20 mL	1.01 mL	2.02 mL
50 mM	0.04 mL	0.20 mL	0.40 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. Wojtowicz AK, Szychowski KA, Kajta M. PPAR-γ agonist GW1929 but not antagonist GW9662 reduces TBBPA-induced neurotoxicity in primary neocortical cells. Neurotox Res. 2014 Apr;25(3):311-22. doi: 10.1007/s12640-013-9434-z. Epub 2013 Oct 17. PMID: 24132472; PMCID: PMC3936120.

In vivo study

1. Wang X, Xu K, Xiong Y, Li Q, Zhao X. Effects of GW1929 on uterus, ovary and bone metabolism function in perimenopause rats. Am J Transl Res. 2020 May 15;12(5):1884-1893. PMID: 32509184; PMCID: PMC7270032.

7. Bioactivity
Biological target:

Product data sheet

GW1929 is a potent PPAR-γ agonist, with a pK_i of 8.84 for human PPAR-γ, and pEC_{50}s of 8.56 and 8.27 for human PPAR-γ and murine PPAR-γ, respectively.

In vitro activity

Pre-treating neuron cultures with GW1929 inhibited caspase-3 activity, compared with TBBPA treatment, by 57.7 and 94.5 % after 6 and 24 h of exposure, respectively (Fig. 5a). The cytotoxic effect of 10 μM TBBPA, measured based on LDH release, in the presence of GW1929 was also inhibited after 6 and 24 h of exposure to 51.3 and 90.8 %, respectively, compared with the TBBPA-stimulated LDH release (Fig. 5b).

Reference: Neurotox Res. 2014 Apr;25(3):311-22. https://pubmed.ncbi.nlm.nih.gov/24132472/

In vivo activity

Treatment with GW1929 attenuated VCD-induced increase in ROS levels and decrease in CAT, SOD and GST in comparison with the model group. These observations revealed that GW1929 was able to relieve the oxidative stress in perimenopause rat.

Reference: Am J Transl Res. 2020 May 15;12(5):1884-1893. https://pubmed.ncbi.nlm.nih.gov/32509184/

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.