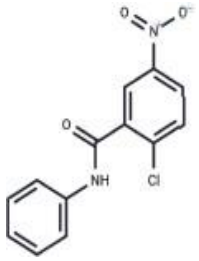
GW9662 [22978-25-2]

#Cat: NB-64-11861-5mg Size: 5mg
#Cat: NB-64-11861-10mg Size: 10mg
#Cat: NB-64-11861-25mg Size: 25mg
#Cat: NB-64-11861-50mg Size: 25mg
#Cat: NB-64-11861-100mg Size: 100mg
#Cat: NB-64-11861-500mg Size: 500mg
#Cat: NB-64-11861-1mL Size: 1mL

Chemical Properties



CAS No. : 22978-25-2
Formula: C13H9ClN2O3
Molecular Weight : 276.68
Appearance: Solid
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	GW9662 (TIMTEC-BB SBB006523) is a PPARγ antagonist (IC_{50} = 3.3 nM) with selectivity. GW9662 can be used to study the pathogenesis of metabolic diseases, such as obesity and diabetes, by inhibiting the activity of PPARγ. GW9662 can also be used to study the pathogenesis of inflammatory diseases, such as atherosclerosis and rheumatoid arthritis. GW9662 has anti-tumor effect.
Targets (IC50)	PPAR
In vitro	**METHODS:** Human breast cancer cell lines (MCF7, MDA-MB-468, and MDA-MB-231) were treated with GW9662 (100 nM–50 mM) for 72 hours, and MTT assay was used to detect the inhibition of cell growth. **RESULTS:** GW9662 significantly inhibited the proliferation of MCF7, MDA-MB-468, and MDA-MB-231 cells (IC50= 20-30 μM). [1]
In vivo	**METHODS:** To study the blocking effect of GW9662 on the protective effect of lipcopolysaccharide, first, rats were pretreated with lipopolysaccharide (1 mg/kg, i.p.), which could significantly weaken all ischemia/reperfusion injury characteristics caused by renal injury and dysfunction. Then, GW9662 (1 mg/kg) was intraperitoneally injected into the rats. **RESULTS:** GW9662 can block the protective effect of lipopolysaccharide.[2]
Kinase Assay	Binding assay: The human PPARα, PPARγ, and PPARδ ligand binding domains (LBDs) are expressed in *E. coli* as polyhistidine-tagged fusion proteins. Receptors are immobilized on SPA beads by addition of the desired receptor (15 nM) to a slurry of streptavidin-modified SPA beads (0.5 mg/mL) in assay buffer. The mixture is allowed to equilibrate for at least 1 hour at room temperature, and the beads are pelleted by centrifugation at 1×10^3 g. The supernate is discarded, and the beads are resuspended in the original volume of fresh assay buffer with gentle mixing. The centrifugation/resuspension

	procedure is repeated, and the resulting slurry of receptor-coated beads is used immediately or stored at 4 °C for up to 1 week before use. [^{3}H]GW2443 are used as radioligands for determination of competition binding to PPARα, PPARγ, and PPARδ, respectively. Unless otherwise indicated, the buffer used for all assays is 50 mM HEPES (pH 7), 50 mM NaCl, 5 mM CHAPS, 0.1 mg/mL BSA, and 10 mM DTT. For some experiments, the HEPES (pH 7) is replaced with 50 mM Tris (pH 8).
Cell Research	MDA-MB-231 cells are seeded at a density of 1 × 10^5 cells per 25 cm^3 tissue culture flask. After 24 h (day 0), the growth medium is replaced with fresh medium containing rosiglitazone (50 μM), GW9662 (10 μM) or both together. Control flasks receives 0.1 % DMSO. Cells are harvested on days 0, 3, 5, 7, 10 for each treatment condition by trypsinisation, stained using trypan blue, and the total viable number of cells per flask calculates using a haemocytometer. 5only for Reference)

Solubility Information

Solubility	DMSO: 255 mg/mL (921.64 mM), Sonication is recommended. Ethanol: 6.9 mg/mL (25 mM), Heating is recommended. (< 1 mg/mL refers to the product slightly soluble or insoluble)

Preparing stock Solutions

	1mg	5mg	10mg
1mM	3.6143 mL	18.0714 mL	36.1428 mL
5mM	0.7229 mL	3.6143 mL	7.2286 mL
10mM	0.3614 mL	1.8071 mL	3.6143 mL
50mM	0.0723 mL	0.3614 mL	0.7229 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

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