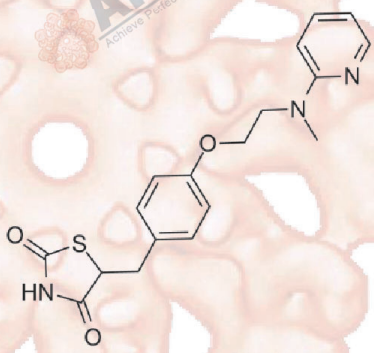
Product Data Sheet

Rosiglitazone

Cat. No.: A4304
CAS No.: 122320-73-4
Formula: C18H19N3O3S
M.Wt: 357.43
Synonyms: Brl-49653, Brl 49653
Target: Metabolism
Pathway: PPAR
Storage: Store at -20°C



Solvent & Solubility

insoluble in EtOH; insoluble in H2O; ⩾17.85 mg/mL in DMSO

In Vitro — Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	2.7978 mL	13.9888 mL	27.9775 mL
5 mM	0.5596 mL	2.7978 mL	5.5955 mL
10 mM	0.2798 mL	1.3989 mL	2.7978 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Potent PPARγ agonist
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Non–small cell lung carcinoma (NSCLC) cells (H1792 and H1838)
Preparation method:	The solubility of this compound in DMSO is >17.9 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	10 μmol/L, 48 hours

	Applications:	Rosiglitazone reduced the phosphorylation of Akt and increased phosphatase and tensin homologue (PTEN) protein expression in non–small cell lung carcinoma (NSCLC) cells (H1792 and H1838), and this was associated with inhibition of NSCLC cell proliferation. Rosiglitazone increased the phosphorylation of AMP-activated protein kinase α (AMPKα), a downstream kinase target for LKB1, whereas it decreased phosphorylation of p70 ribosomal protein S6 kinase (p70S6K), a downstream target of mammalian target of rapamycin (mTOR).
In Vivo	**Animal experiment**	
	Animal models:	C57/BL6 mice
	Dosage form:	8 mg/kg per day
	Applications:	In C57/BL6 mice underwent femoral angioplasty, treatment with rosiglitazone (8 mg/kg per day) attenuated neointimal formation. In a BM transplantation model, Rosiglitazone caused a 6-fold increase in colony formation by human endothelial progenitor cells, promoted the differentiation of APCs toward the endothelial lineage in mouse BM in vivo and in human peripheral blood in vitro, and inhibited the differentiation toward the smooth muscle cell lineage. Within the neointima, rosiglitazone stimulated APCs to differentiate into mature endothelial cells and caused earlier reendothelialization.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Han S W, Roman J. Rosiglitazone suppresses human lung carcinoma cell growth through PPARγ-dependent and PPARγ-independent signal pathways[J]. Molecular cancer therapeutics, 2006, 5(2): 430-437.

[2]. Wang C H, Ciliberti N, Li S H, et al. Rosiglitazone facilitates angiogenic progenitor cell differentiation toward endothelial lineage[J]. Circulation, 2004, 109(11): 1392-1400.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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