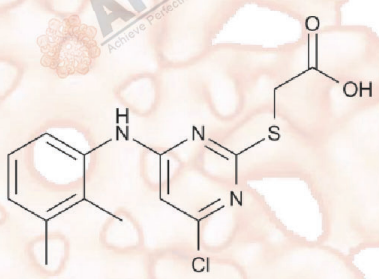
Product Data Sheet

WY-14643 (Pirinixic Acid)

Cat. No.: A4305
CAS No.: 50892-23-4
Formula: C14H14ClN3O2S
M.Wt: 323.8
Synonyms: WY 14643,WY14643
Target: Metabolism
Pathway: PPAR
Storage: Store at -20°C



Solvent & Solubility

In Vitro

insoluble in H2O; ⩾16.2 mg/mL in DMSO; ⩾48.8 mg/mL in EtOH with ultrasonic

Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	3.0883 mL	15.4416 mL	30.8833 mL
5 mM	0.6177 mL	3.0883 mL	6.1767 mL
10 mM	0.3088 mL	1.5442 mL	3.0883 mL

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

Biological Activity

Shortsummary	PPARα agonist,selective and highly potent
IC_{50} & Target	10.11 μM (human) (PPARα)

In Vitro

Cell Viability Assay

Cell Line:	Human ECs and U937 cells
Preparation method:	The solubility of this compound in DMSO is > 16.2 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:	0, 2.5, 25 or 250 μM; 24 hrs

	Applications:	Pretreatment of ECs with 250 μM WY-14643 significantly down-regulated the VCAM-1 expression level to 52 ± 2% of TNF-α-stimulated cells. Besides, pretreatment of ECs with WY-14643 before TNF-α stimulation significantly reduced U937 cell adhesion to 37.3 ± 4.3 × 103 cells/cm2. Northern blot analysis indicated that the increased VCAM-1 mRNA level caused by TNF-α stimulation could be concentration-dependently inhibited by pretreatment with WY-14643.
In Vivo	**Animal experiment**	
	Animal models:	High fat-fed rats
	Dosage form:	3 mg/kg/day; p.o.; for 2 weeks
	Applications:	In high fat-fed rats, WY-14643 lowered basal plasma levels of glucose, triglycerides and leptin, muscle triglyceride as well as total LCACoAs. Besides, WY-14643 significantly reduced visceral fat weight and total liver triglyceride content, without increasing body weight gain. In addition, WY-14643 enhanced whole body insulin sensitivity, thus increasing insulin-mediated muscle glucose metabolic index in red and white muscles as well as in white adipose tissue, and reducing muscle triglyceride as well as LCACoA accumulation.
	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

1. Bassem M. Shoucri, Eric S. Martinez, et al. "Retinoid X receptor activation alters the chromatin landscape to commit mesenchymal stem cells to the adipose lineage." Endocrinology. 2017 Jul.

See more customer validations on www.apexbt.com.

References

[1]. Marx N, Sukhova GK, Collins T, Libby P, Plutzky J. PPARalpha activators inhibit cytokine-induced vascular cell adhesion molecule-1 expression in human endothelial cells. Circulation. 1999 Jun 22;99(24):3125-31.

[2]. Ye JM, Doyle PJ, Iglesias MA, Watson DG, Cooney GJ, Kraegen EW. Peroxisome proliferator-activated receptor (PPAR)-alpha activation lowers muscle lipids and improves insulin sensitivity in high fat-fed rats: comparison with PPAR-gamma activation. Diabetes. 2001 Feb;50(2):411-7.

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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