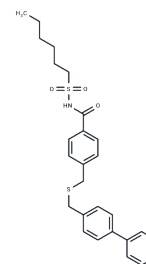


KY-226

## Chemical Properties

CAS No. : 1621673-53-7  
 Formula: C<sub>27</sub>H<sub>31</sub>N<sub>3</sub>O<sub>3</sub>S<sub>2</sub>  
 Molecular Weight: 481.67  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
 Actual storage temperature shall be subject to the COA.



## Biological Description

Description	KY-226 is a potent inhibitor of protein tyrosine phosphatase 1B (PTP1B)(IC <sub>50</sub> : 0.25 μM,)
Targets(IC <sub>50</sub> )	Phosphatase
In vivo	In db/db mice, the oral administration of KY-226 (10 and 30 mg/kg/day, 4 weeks) significantly reduced plasma glucose and triglyceride levels as well as hemoglobin A1c values without increasing body weight gain, while pioglitazone exerted similar effects with increases in body weight gain. KY-226 attenuated plasma glucose elevations in the oral glucose tolerance test. KY-226 also increased pIR and phosphorylated Akt in the liver and femoral muscle. In high-fat diet-induced obese mice, the oral administration of KY-226 (30 and 60 mg/kg/day, 4 weeks) decreased body weight gain, food consumption, and fat volume gain with increases in phosphorylated STAT3 in the hypothalamus.

## Solubility Information

Solubility	DMSO: 25 mg/mL (51.9 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.15 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

---

	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.0761 mL	10.3806 mL	20.7611 mL
5 mM	0.4152 mL	2.0761 mL	4.1522 mL
10 mM	0.2076 mL	1.0381 mL	2.0761 mL
50 mM	0.0415 mL	0.2076 mL	0.4152 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Ito Y , Fukui M , Kanda M , et al. Therapeutic effects of the allosteric protein tyrosine phosphatase 1B inhibitor KY-226 on experimental diabetes and obesity via enhancements in insulin and leptin signaling in mice[J]. Journal of Pharmacological Sciences, 2018:S1347861318300422.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481