Product Data Sheet

Product Name: (S)-Phenylpiracetam
Cat. No.: GC81886

Chemical Properties

Cas. No.	949925-08-0		
Formula	$C_{12}H_{14}N_2O_2$	M.Wt	218.25
Solubility	DMSO: 100 mg/mL (458.19 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure

Background

(S)-Phenylpiracetam ((S)-Carphedon; (S)-Fonturacetam; (S)-MRZ 9547) is an orally active and

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selective dopamine transporter inhibitor, with K i = 56 μM. (S)-Phenylpiracetam is an isomer of (R)-Phenylpiracetam. (S)-Phenylpiracetam reduces body weight and fat mass gain, decreases plasma leptin and blood glucose levels, and improves glucose tolerance in obese model animals. (S)-Phenylpiracetam can be used for obesity-related research [1].

In Vivo, (S)-Phenylpiracetam (50 mg/kg; p.o.; daily; 12 weeks) reduces body weight gain by 16% in obese Zucker rats, significantly decreases fat mass gain, tends to reduce food intake, and lowers fed-state blood glucose concentrations without affecting insulin concentrations; it also does not affect locomotor activity (distance traveled or speed) in obese Zucker rats[1]. (S)-Phenylpiracetam (50 mg/kg; p.o.; daily; 8 weeks) reduces mean body weight by 26%, decreases fat mass by 45%, lowers hyperleptinemia by 61%, improves glucose tolerance, and reduces hyperglycemia in WD-fed mice without altering plasma insulin concentrations[1]. (S)-Phenylpiracetam (50-100 mg/kg; p.o.; single administration) at a dose of 100 mg/kg results in significantly greater travel distance and speed than the R-Phenylpiracetam treatment group[1].

In Vitro, (S)-Phenylpiracetam competitively inhibits [3H]WIN 35,428 binding to DAT in rat brain striatal membranes with a Ki of 56 μM[1].

References:
[1]. Zvejniece L, et al. S-phenylpiracetam, a selective DAT inhibitor, reduces body weight gain without influencing locomotor activity. Pharmacology, biochemistry, and behavior. 2017 Sep;160:21-29.

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA